

NATIONAL COASTAL ZONE MANAGEMENT EFFECTIVENESS STUDY

The Effectiveness of Coastal Zone Management Programs in Redeveloping Deteriorating Urban Ports and Waterfronts



Washington Sea Grant Program
University of Washington

and

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University of Washington

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and Waterfronts**

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The Effectiveness of Coastal Zone Management Programs in Redeveloping Deteriorating Urban Ports and Waterfronts

A National Overview

Context and Purpose

"Congress finds and declares that it is the national policy... to encourage and assist the states to exercise effectively their responsibilities in the coastal zone through the development and implementation of management programs...which programs should at least provide for...assistance in the *redevelopment of deteriorating urban waterfronts and ports*, and sensitive preservation and restoration of historic, cultural, and esthetic coastal features..." (PL 92-583)

Few national CZM objectives have a more diverse and extensive constituency than does revitalizing urban waterfronts. Fishers, boaters, joggers, walkers, shoppers, bicyclists, photographers, maritime history buffs, tourists, people watchers and artists all benefit when formerly deteriorated, walled-off waterfronts become accessible, safe and inviting. Inner city and suburb come together at waterfront festivals and other events; and new immigrants and long-established families rub shoulders at waterfront take-out fish 'n chips counters. Downtown property developers and marine conservation groups can and do join in developing and supporting waterfront plans that reinvigorate coastal economies and sustain marine environments.

But, sixteen years after the federal coastal zone management act amendments of 1980 declared waterfront revitalization a national goal, little had been done to assess the effectiveness of CZM in addressing it. This study is the first attempt to capture the scope and meaning of on-the-ground outcomes that have resulted from the efforts of the 29 state and territories' coastal management programs to address this goal.

Study Approach

To assess the contributions each state's CMP has made to achieving waterfront revitalization, we asked four questions:

1. What tools are available in each state's CMP?
2. How does this suite of tools compare with those of an *ideal* waterfront revitalization program?
3. What tools were actually utilized, on the ground, in the state's deteriorated waterfront districts?
4. What proportion of the state's CMP capacity to effect waterfront revitalization was put to use?

Study Methods

Surveys of state CMPs' officials, augmented by program documents and reports on states' program achievements, produced the information we used to create state "profiles"—descriptions of the way each state's CMP addresses waterfront revitalization, and measures of outcomes achieved in each waterfront district where the CMP was involved. The salient data we assembled were: Characteristics of the state's coastal zone affecting this issue; categories of state policies in place; a list of waterfront districts in which CZM resources had been expended, the stage of revitalization reached and scope of improvements made in each district; and, the CZM tools available to the state's CMP, those actually utilized in each waterfront, together with the program manager's assessment of the importance and effectiveness of each tool or suite of tools.

Principal Findings and Conclusions

On-the-Ground Outcomes

This study has identified over 300 waterfront districts in communities throughout the nation's coastal zone that have benefited from their states coastal management programs' (CMPs) attention to the national goal of revitalizing deteriorated ports and urban waterfronts. The real number of revitalizing waterfronts is undoubtedly much higher. These waterfront districts range in size and complexity from smallbay front villages along coastal estuaries to redevelopment areas abutting the densely populated metropolitan shores of some of the nation's largest cities. Revitalization is "complete" in only 10% of the districts, but, in more than one-third of these waterfronts, investments have been made to improve infrastructure and develop multiple projects.

Within these revitalized and revitalizing waterfronts, other important, complementary national CZM goals are being realized. Degraded coastal environments are being restored as brownfield sites are cleaned up and contaminated harbor sediments are capped; historic structures are being reused for new people-friendly activities; traditional and new marine industries are being protected from encroachment by non-water dependent uses; plazas, parks, trails, boardwalks, viewing towers and fishing piers are luring people back to the water's edge; and, waterfront festivals and events, aquariums, maritime museums and harbor tours are delighting them when they get there.

In the adjacent uplands, hotels and tourist centers, retail boutiques and restaurants serve residents, visitors and tourists, and produce economic benefits to the community. Waterfronts are being re-linked with the downtown cores their wharves and docks originally served.

All this has been achieved through partnerships involving state's CMPs, local communities, non-profit organizations, universities, and other state and federal funding and planning assistance

programs. It is the nature of such partnerships that the exact contribution of each partner to the results achieved is difficult to fully assess, but simple to recognize.

The states most active in this enterprise have extensive shorelines harboring communities that have been impacted by industrial change: manufacturing plant closures due to decline in the metals and heavy fabrication industries, and contraction of ports around the Great Lakes; decline and restructuring of resource-dependent industries—fishing and wood products harvesting and manufacturing—in the Pacific Northwest and New England; and, contraction of defense-based industries and closure of military bases in California.

Effective Strategies

States that determined revitalizing deteriorated urban waterfronts and ports was an issue of sufficient priority to warrant attention through their CMP's, found the necessary resources and employed the tools they had at hand to address the issue. Five effective, though not mutually exclusive, strategies stand out:—

Marketing state assistance programs—used in California, Maine, Michigan, New York, Oregon, Pennsylvania, Washington and Wisconsin. These states, for the most part, comprise regions that have sustained significant industrial change over the last two decades which resulted in abandoned factories, wharves and docks along their downtown waterfronts. Their CMPs rank among the most active programs addressing this issue and have achieved extensive on-the-ground outcomes.

Targeting specific waterfronts and ports—used in American Samoa, Massachusetts, Pennsylvania and Mississippi. Each of these states took an inventory of their urban coasts, established a target list of deteriorated or underutilized waterfronts and/or ports, designated them for action, and assisted some or all of those communities develop and implement revitalization plans and projects.

Delegating responsibility to a networked agency—used by Hawaii, Puerto Rico and California. Two of these three states' coastal management programs used existing state planning and community redevelopment agencies to deliver urban waterfront revitalization services to local towns and cities, while California created a new agency—the California State Coastal Conservancy—and a special funding source to accomplish revitalization throughout the state.

Responding to local revitalization initiatives—Alaska, Connecticut, North Carolina, Maryland, Florida, Virginia, New Jersey, and Guam fall into this category. In these states, local communities initiate revitalization efforts which their states' CMPs assist and support.

Reacting to revitalization through the regulatory process—South Carolina and the San Francisco Bay Area segment of California's CMP have adopted this strategy. These CMPs have had little direct involvement in waterfront revitalization at the local level, but review waterfront plans and projects to ensure that they are in compliance with their states' CZM goals and policies.

Revitalization Tools and Processes

In implementing these strategies, state CMPs used three kinds of tools to assist communities in revitalizing their waterfronts: *Designation of waterfronts* for revitalization, preparation of *Special Area Management Plans*, and forging *partnerships* are proactive tools used by the states to signal local cities and towns that specific waterfronts are deteriorated, that it is state policy that they should be revitalized, and that the state CMP will assist them in the process. Providing *financial assistance*, *technical assistance*, producing *guidance documents* and undertaking *education and training* programs are tools the states use to support local revitalization efforts. *Local coastal program amendment review*, *project review* and *environmental review* are tools states use to react to local initiatives and ensure state CZM policies are being achieved and regulations met during implementation of waterfront plans and projects.

The most commonly used tools were *financial assistance* to, and *partnering* with local communities, followed by *technical assistance* and *project review*. These tools were also ranked the most important by state program managers.

Not all states' CMPs have access to the full suite of tools that would comprise the "ideal" waterfront revitalization program; and not all states have fully utilized the tools they have. The *degree* to which CMPs have utilized available tools in assisting their coastal communities revitalize their waterfronts is a measure of these programs' contribution to results achieved "on the ground."

Recommendations

National Funding

Improving CZMs effectiveness in this program area can be accomplished, first, through restoration of national funding to NOAA to assist the states continue to foster waterfront revitalization in their coastal cities and towns. This action would reverse the disturbing trend towards termination, or drastic reductions in states' assistance to their local government partners.

Improved funding would also permit hiring and retaining of staff with subject area expertise in OCRM to enhance program activity in support of state programs addressing this issue—in particular, education & training, and routine monitoring and evaluation of states' coastal programs.

A National Needs Assessment

Conducting a national needs assessment now would provide for more efficient, targeted state programs to assist local government in future years. A significant step in undertaking such an assessment would be to *elevate waterfront revitalization as a national enhancement objective in §309 of the federal CZM Act*. The effect of this change would be to require each state's CZM agency to undertake a conscious, deliberate assessment of the issue, develop a strategy to address waterfront revitalization priorities in its CMP, and receive supplementary federal funding to implement the strategy.

Building on this study's nationwide inventory of waterfronts undergoing revitalization, OCRM should develop and maintain an *urban waterfronts inventory*. The database developed for this study should be expanded to include a listing of all urban places located on coastal waterways (marine shores, estuaries and tidal reaches of rivers). States' coastal managers should be asked to review the listings and to add notations concerning known, remaining areas of significant waterfront deterioration and dilapidation that might warrant attention over, say, the next five years.

State and Federal Program Monitoring and Data Management

Better record-keeping, data management and program monitoring at state and federal levels would permit important program achievements to be identified more easily, and progress towards national goals measured more continuously.

States CMPs should report to OCRM information on §306 and §306A grants to local governments or other entities in a standardized format that would identify the primary and secondary purposes of the grant, the dollar amount awarded, and a brief synopsis of the results achieved. States should also be encouraged to report awards of state-funded grants used to support CMP goals and policies.

OCRM, in turn, should maintain an active and accessible database of such grants, coded to permit retrieval by state, grant recipient (municipality, university, state agency, etc.) and program area supported (public access, waterfront revitalization, etc.)

1.0 Introduction

1.1 Purpose of this Study

This document reports the results of one element of a five-part study of the effectiveness of the 29 states' coastal management programs in addressing three core objectives of the federal CZM program. These core objectives were: 1. natural resource protection; 2. public access; 3a. priority consideration of water dependent uses; and 3b. revitalizing deteriorated urban waterfronts. The overall study focuses on program results—on the ground outcomes—and attempts to link these results to the policies, tools, and processes used by the 29 states' programs to achieve them. The strength of the linkages between program activities and program outcomes is an indication of the extent of CZM's contribution to the results.

The three core objectives were broken down into five specific program areas, each the subject of investigation by an individual research team member. These were:

- protection of beaches, dunes, bluffs and rocky shores (Core objective 1)
- protection of estuaries and coastal wetlands (Core objective 1)
- public access to the coast (Core objective 2)
- priority consideration of port development (Core objective 3a)
- revitalizing deteriorated urban waterfronts and ports (Core objective 3b)

The last—revitalizing deteriorated urban waterfronts and ports—is the subject of this report.

1.2 Overall CZM Goal for Waterfront Revitalization

Section 303 of the federal coastal zone management act (FCZMA) of 1972, as amended in 1980, reads, in part:

"Congress finds and declares that it is the national policy... (2) to encourage and assist the states to exercise effectively their responsibilities in the coastal zone through the development and implementation of management programs to achieve wise use of the land and water resources of the coastal zone, giving full consideration to ecological, cultural, historic, and esthetic values as well as the needs for compatible economic development, which programs should at least provide for—

"...(F) assistance in the *redevelopment of deteriorating urban waterfronts and ports*, and sensitive preservation and restoration of historic, cultural, and esthetic coastal features..." (PL 92-583)
(Emphasis added)

In 1980 the FCZMA was amended through passage of the coastal resource improvement act (PL 96-464) which added §306A—resource management improvement grants.

"The Secretary may make grants to any eligible coastal state to assist that state in meeting one or more of the following objectives:

"... (2) The *redevelopment of deteriorating and under utilized urban waterfronts and ports* that are designated under section 305(b)(3) in the state's management program as areas of particular concern." §306A.(b)(2)

These sections of the FCZMA provide the authority for the Office of Ocean and Coastal Resources Management (OCRM) to provide funding to states for waterfront revitalization planning, design, engineering, land acquisition, and certain low cost construction projects including "...paths, walkways, fences, parks, and the rehabilitation of historic buildings and structures..." and for "...the rehabilitation or acquisition of piers to provide increased public use, including compatible commercial activity... installation or rehabilitation of bulkheads for the purpose of public safety or increasing public access and use... removal or replacement of piling...(for) increased recreational use of urban waterfront areas."

Educational, interpretive, and management costs were also allowable expenditures under this section. (§306A.(c)(2))

The CZMA defines the term urban waterfront or port as: "any developed area that is densely populated and is being used for, or has been used for, urban residential, recreational, commercial, shipping, or industrial purposes" (§306A.(a)(2)). This broad definition could accommodate virtually any shoreline adjacent to urban areas on marine or Great Lakes waters. The phrase "waterfront *revitalization*" does not appear in the act; but its common usage in coastal management publications and within the coastal management community suggests it is synonymous with (or perhaps the consequence of) "waterfront *redevelopment*," the term used in the act.

It is clear that the intent of congress was that waterfront redevelopment had as its primary purpose the opening up of formerly run-down waterfronts for recreation and public access. Commercial activities that were compatible with these primary purposes were appropriate uses, even in refurbished overwater piers; which suggests that a suspension of strict water-dependency requirements could occur where adaptive re-use of obsolete piers required it. Waterfront redevelopment and conservation of historic, cultural and esthetic coastal features, are policies that are juxtaposed in §303(2) of the FCZMA suggesting a strong link between them. Together with §306A funding for educational and interpretive programs, these policies provided coastal managers with strong guidance and incentive to conduct waterfront revitalization in a fashion that would produce broad public benefits and heritage conservation.

1.3 Overview of this Report

Section 2 of this report sets out the national context for this issue and reviews highlights of the professional CZM literature that has addressed waterfront revitalization, particularly those using case studies that have documented on-the-ground outcomes. Previous CZM evaluation studies that have utilized program expenditures as a measure of program issue focus, or have relied on interviews with program professionals and other experts, are also reviewed for any light they may shed on waterfront revitalization.

Section 3 examines some of the conceptual problems involved in assessing the effectiveness of CZM programs in addressing this issue area, and sets the stage for our study design in Section 4.

In Section 4 we set out the definitions of waterfronts and waterfront revitalization that we shall use throughout this study, and the assumptions we make about the respective roles played by state CMPs and local towns and cities undertaking waterfront revitalization. The remainder of this section describes our program evaluation methodology; data sources; our survey design, testing, and refinement; and the limitations of our data.

In Section 5 we present the research results. First comes a national summary of on-the-ground outcomes achieved—a description of the magnitude and kind of revitalization results. Next, we identify CZM's contributions to these outcomes through CMPs' statewide policies and the tools used by states to assist local cities and towns implement them in urban waterfronts. We then group states on the basis of on-the-ground results achieved, and describe their individual programs' approaches and achievements.

From the "best" components of the 25 state programs on which we have data, we then construct a "straw man" ideal waterfront revitalization program—the authority, policies and suite of tools a state might use to address waterfront revitalization. Each state's actual program is then compared to the ideal, and its strengths and shortcomings noted. Finally, an attempt is made to assess the relative contribution made by each state's CMP to the on-the-ground outcomes achieved in the state's waterfront districts.

In Section 6 we lay out our study's conclusions about the effectiveness of CZM in addressing the national issue of revitalizing deteriorated waterfronts, and the kinds of effective strategies used by CMPs in addressing the issue in their states. In this section we also reiterate and summarize the limitations of our study based on its design, the quality and completeness of data available, and the lack of a national needs definition for the issue of waterfront revitalization.

Section 7 contains our recommendations for improving the performance of CZM in addressing this issue at both state and federal levels.

Section 8 presents our bibliography organized under general and state-by-state categories.

Appendices provide the reader with a sample "State Profile"—the summary of information about a state's CMP, its treatment of waterfront revitalization and the detailed results achieved; profile summaries for all the states, including those for which we have little tools or outcome data; a copy of the questionnaire we used to collect data from the states; a summary of state data sources and quality; a list of waterfront communities and districts where revitalization has occurred, or is presently underway, organized by state; and, finally, a "model" CZM waterfront revitalization grant application from Michigan's CMP.

2.0 Background and Context

Waterfront revitalization was already well underway in the nation's larger seaport cities (Baltimore, New York, San Francisco, Boston, Seattle, etc.) before the 1980 CZMA amendments focused state CZM programs' attention on deteriorated and underutilized urban waterfronts and port areas. These run down waterfronts were artifacts of several national trends having their origins in the 1950's and -60's: The shrinkage of some ports as a result of containerization of cargoes and load centering; port abandonment of downtown piers, wharves and transit sheds in favor of new container terminals constructed on flat, less-developed industrial shorelines; the demise of ocean going passenger liners as the airlines' international reach expanded with the advent of jet transports; the sub urbanization of downtown manufacturing establishments, including water-dependent and water-related industries, as a result of efficient truck transportation; urban renewal and downtown revitalization; improvements in water quality and growth in tourism/recreation, especially boating and other water-based activities.

Over the next two decades, major structural changes in the economies of coastal counties in the Great Lakes and the Pacific Northwest resulted in further deterioration of ports and waterfronts serving the needs of mining, fishing, lumber and other natural resource extraction and harvesting industries, and the shore-based manufacturing firms dependent upon these raw materials. These changes are felt not only in the economy of the affected regions, but also in their cultures which were often defined by mining, fishing or logging.

Several authors have identified these underlying structural changes and the problems and opportunities they presented planners and coastal managers in the 70s, (Moss, 1976; Hershman, et al, 1978; Wrenn et. al., 1983), and planning and architectural journals devoted whole issues to waterfront revitalization (Progressive Architecture, June, 1975; Planning, Nov. 1979)

On June 1, 1978 more than a dozen federal agencies signed a memorandum of understanding (MOU) promising to promote urban waterfront revitalization efforts. Signatories included: NOAA's Office of Coastal Zone Management (OCZM), Environmental Protection Agency (EPA), National Endowment for the Arts (NEA), National Trust for Historic Preservation (NTFHP), US. Army Corps of Engineers (USACOE), Department of Transportation (DOT), Heritage Conservation and Recreation Service (HCRS), National Park Service (NPS), Economic Development Agency (EDA), Maritime Administration (MARAD), and the Office of Federal Insurance & Hazard Mitigation (OFIHM). These agencies also formed an "Urban Waterfront Action Group" with the aims of establishing an information clearinghouse, improving program and permit coordination, and exploring new coordinating mechanisms. This preliminary move to focus and rationalize federal involvement in waterfront revitalization occurred two years before

Congress amended the CZMA and made redeveloping deteriorated urban waterfronts and ports a national goal.

In 1980 OCZM and HCRS jointly published a major guide to waterfront revitalization (Breen, Kaye, O'Connor and Rigby, 1980). Improving Your Waterfront: A Practical Guide¹, was a comprehensive, case study-based compendium of information which addressed, primarily, the implementation phase of the redevelopment process, provided access to major federal sources of funding and technical assistance, and articulated the importance of achieving CZM goals in urban waterfronts.

Municipal governments, ports and public development corporations have teamed with private sector interests to take on large city waterfront projects. Federal urban renewal and community development agencies have helped fund planning studies, site acquisition, site clearance and cleanup, and new infrastructure along the waterfront. Because of CZM's late start and the magnitude of financial resources required to revitalize waterfront areas, CZM agencies have been forced to be "niche players." CZM has provided a forum for resolving contentious waterfront development issues, and its policies have kept on the urban waterfront agenda those affirmative national coastal goals of expanding public access, restoring degraded environments, preserving cultural and historic buildings and sites, and giving preference to coastal dependent industries—the "working waterfront" issue. This last goal has proven to be the most contentious and elusive. Competition from non-water dependent development—restaurants, housing, hotels, offices—and water dependent development of a purely recreational nature—marinas, yacht brokers, etc.—displaces industrial water dependent businesses that support commercial fishing fleets and other maritime enterprises. (Breen and Rigby, 1985; Goodwin, 1988)

Brower, et al, (1991) assessed CZM's achievements in seven national issues areas by analyzing five years of §306 and §306A expenditures. *Urban waterfront development* was one of those issues, accounting for 7.5% of total expenditures, or \$14.3 million from 1982 to 1987. Broken down by state, Brower's data provided very useful intelligence about the priority the issue received around the nation—information that played a significant role in focusing our research efforts. The state coastal management program summaries contained useful anecdotal information about program achievements in waterfront revitalization, as well as general descriptions of the states' programs.

¹Two of this study's authors, Anne Cowey-Breen and Dick Rigby, went on to found *The Waterfront Center*, a Washington, DC-based educational and consulting organization which has produced several important publications on waterfront revitalization and has conducted a national annual conference every year since 1983.

3.0 Conceptual Challenges in Assessing CZM Programs' Contribution to Waterfront Revitalization

3.1 Overview

Several conceptual and practical problems attend the measurement of effectiveness of states' CZM programs in meeting the national goal of revitalizing under-utilized and deteriorated urban waterfronts and ports. Five problems in particular must be overcome: knowing the number of communities in each coastal state having deteriorated or under-utilized waterfronts; delineating the extent of each waterfront district to be revitalized in those communities; distinguishing the unique contributions of CZM programs to the timing, character and quality of revitalized waterfronts; determining the relative importance of assistance provided by CZM programs vis-à-vis other contributing entities in achieving successful revitalization; and, finally, factoring in the costs of achieving on-the-ground results—i.e. program efficiency.

3.2 Establishing the Target Population of Waterfronts

The first is the problem of establishing the target population, or a "control total," of waterfront communities or districts needing revitalization. Without an explicitly defined target population of under-utilized or deteriorated waterfront districts, state programs' progress towards achieving waterfront revitalization lacks a reference point.

"Under-utilized" and "deteriorated" are not absolute terms—many working waterfronts have an unkempt appearance that belies their economic vitality; and, at times of downturns in fisheries or other resource-based marine enterprises, docks and shoreside plants may seem under-utilized, until demand picks up again. Attempts to revitalize these gritty waterfronts might have unintended and unfortunate economic and social consequences.

3.3 Scale and Complexity of Waterfronts

Second, deteriorated urban waterfronts vary greatly in *scale* and *complexity*. A small town may have a single abandoned industrial site that dominates its waterfront, while a large city could have several waterfront "districts," each with its own problems of deterioration or under utilization, and unique opportunities for redevelopment. What, then, are the geographic limits of each "waterfront?" Where should we draw its boundaries?

3.4 Significance of the State CZM program's role

Third, is the *significance* of the state CZM program's role in waterfront revitalization. Did CZM involvement accelerate revitalization? Did CZM expand the number of coastal communities choosing to undertake revitalization? In what ways do revitalized waterfronts reflect the values and principles embodied in the state's CMP? What CZM goals beyond that of bringing life back

to abandoned waterfronts have been achieved? Is there more public access to the water? Have ports and water-dependent industries been protected from displacement by retail, recreation and tourist activities? Have formerly contaminated sites been restored, or the contaminants at least been confined? Were historic waterfront sites and structures restored, conserved and interpreted?

3.5 Attribution of the State CZM program's contribution

Fourth, revitalizing waterfronts may be part of a broader program of urban renewal, or downtown revitalization which would proceed with or without CZM involvement. Thus there is a problem of *attribution*: Which governmental entity or program takes how much credit for results gained through collective efforts? The city that initiated the revitalization and sought planning, feasibility and construction grants wherever it could find them? The state or regional community development agency that supplied financial and technical assistance? The port authority that undertook a major redevelopment project on waterfront lands it owned, without outside assistance or funding? A federal housing or economic development agency that provided funding for a demonstration project? A state outdoor recreation planning agency that acquired land for a waterfront park? Clearly, each has a claim on some of the credit for successful revitalization.

3.6 Costs and Program Efficiency

Finally, the issue of the costs of achieving on-the-ground outcomes attained is an important consideration in determining program effectiveness. Program effectiveness is related to program efficiency. The same outcomes achieved at lower cost would point to higher efficiency, and hence, greater program effectiveness. Here we have a conceptual problem, however: Expenditure of CZM §306 or 306A funds is an indicator of a CMP's involvement in revitalizing a waterfront district and is a critical link between CZM policy and on-the-ground outcomes—the greater the level of funding, the higher the degree of CMP involvement. The most efficient use of CZM funds might result in substantially smaller outlays than those observed, with a higher share of costs being borne by local governments and the private sector.

4.0 Measuring Effectiveness of State CZM Programs in Meeting the National Goal of Waterfront Revitalization

4.2 Definitions

4.2.1 Waterfront Revitalization

Waterfront revitalization is a process that begins with the desires of a community to improve its waterfront, proceeds through a series of planning steps and public review to adoption of a waterfront plan. Implementation of the plan involves public and private actions, investment

decisions and developments which occur, ideally, in a coordinated fashion. Dilapidated structures are razed, infrastructure upgraded, land parcels assembled for private development, public walkways and viewpoints, and waterside improvements such as visiting vessel floats or docks are installed; leased space is rented in new or refurbished buildings, townsfolk and visitors discover a new amenity at their backdoor, pedestrian counts rise and new businesses respond to the market opportunities they present. Perhaps a harbor festival is planned by the local Chamber of Commerce, or the state Coastweeks coordinator helps arrange waterfront walks and harbor clean-up days in cooperation with a local marine trades association.

The end point of this planning and development process is an accessible, clean and safe downtown waterfront alive with people enjoying new activities and events. It is also a waterfront hospitable to both traditional and new marine industries that help bring a note of authenticity to the visitor's waterfront experience.

4.2.2 Waterfront District

The concept of a waterfront district helps to identify distinct nodes of revitalization activity within long urban shoreline reaches. For example, the shoreline adjacent to a community's Central Business District may undergo redevelopment that focuses on public access through shoreline promenades and public piers, but which also encourages significant retail, restaurant and entertainment activity on adjacent upland sites or in adaptively reused break-bulk cargo transit sheds. In contrast, revitalization of obsolete port/industrial facilities some distance from the CBD might be focused on new recreational boating facilities, marine services and fishing piers, with the development of adjacent uplands for housing or commercial offices.

The extent of districts may be self-evident because they are contained between reaches of relatively homogenous land uses—housing, large scale industrial plants, or existing public waterfront parks. In other cases the boundaries may be indistinct, particularly where long reaches of industrial waterfront have been abandoned and only a small part abuts a commercial center, or residential neighborhood which might form the nucleus for revitalization planning efforts.

4.3 Assumptions

4.3.1 States' CZM Programs' Roles in Waterfront Revitalization

A State CZM program's roles are, first, to foster or ignite local cities' interest in undertaking waterfront revitalization, and, second, to ensure that waterfront plans and projects undertaken by those cities incorporate other coastal management goals such as enhancing public access, restoring deteriorated coastal environments and protecting healthy ones, and conserving historic structures and cultural sites. States carry out these roles by using some or all of the following tools and processes: *Designating* certain waterfronts as deteriorated and targeting them for revitalization; providing *funding* to assist in developing local plans; promulgating *guidelines* and

principles to ensure comprehensiveness and consideration of the unique needs of coastal-dependent activities and protection of coastal environments in those plans; undertaking *educational programs* to share experience and showcase results; fostering *partnerships* between waterfront cities and federal and state agencies, non-profit organizations, ports and other institutions; and funding carefully selected *demonstration* or "seed" projects that will lead to further public and/or private investment in waterfronts. *Special area management plans* (SAMPs) may also be helpful for identifying areas within an urban harbor for W-R.

Through whatever regulatory tools are available, state programs also may review adoption of waterfront revitalization plans—using their authority to oversee *amendments to local coastal programs*, for example. Waterfront *projects* and their *environmental* effects may be reviewed for compliance with CMP policies and standards through state or federal consistency procedures, or direct oversight authority where that exists.

Not all deteriorated waterfronts are susceptible to revitalization, though few could not be improved. Local and regional economic conditions will determine whether the community is growing or declining; site factors—physical amenity, presence of contaminants in soils, quality of coastal waters for recreation, adjoining neighborhood characteristics, etc.—will influence the kinds of new land and water uses that could be attracted to the waterfront. Perturbations in the quantities of natural resources available for harvest, and changes in management policies affecting who can harvest them, will have major consequences for some existing resource-dependent waterfront industries. When selecting communities in which to invest scarce federal, or state planning and project development funds, state coastal managers need to understand these contextual factors and the limitations they impose on waterfront revitalization.

4.3.2 Local Governments' Role in Waterfront Revitalization

Waterfront revitalization is largely the business of cities. While CZM programs can designate specific deteriorated waterfronts as targets for state funding and technical assistance, the initiative to act on such designations must arise within the cities themselves. Knowledge about, and the skills needed to achieve waterfront revitalization are often available in larger cities' planning, community development, and public works departments, but smaller cities will have to contract with urban design and planning consultants, and waterfront development experts for such knowledge and skills.

4.4 Methodology

4.4.1 Overview

The results of State CZM programs' involvement in waterfront revitalization fall on a continuum. At one end are the CZM laws and policies that shape a state's coastal agenda and provide the authority and tools to address it. Next come the initial results of CZM tools being put to use,

such as financial and technical assistance being provided to local cities—process indicators. In the middle are the intermediate results achieved through the use of these tools—process outcomes—such as feasibility studies being undertaken, or waterfront plans being developed. At the other end of the continuum are on-the-ground outcomes—physical improvements to deteriorated waterfronts such as refurbished buildings, improved infrastructure, and new economic activity.

Our approach to assessing the effectiveness of CZM in assisting state's achieve these outcomes will be to document the linkage between a state CMP's policies, its application of CZM tools in specific waterfront districts and their effects throughout the stages of waterfront revitalization realized in those districts. The result is a measure of the *relative* contribution each state CMP has made to the on-the-ground results achieved in each waterfront.

We began by constructing "profiles" of each state's CMP and its treatment of waterfront revitalization. The information for each profile was assembled through detailed surveys of state CMPs' officials, augmented by a thorough review of program documents and reports on states' program achievements. From these profiles, a database was created with a record for each waterfront district and summary records for state and national aggregates. Each record contained fields for CZM policies; CZM grant funds and total dollars invested; stages of revitalization reached; scope of revitalization achieved; and CZM tools utilized, their importance, rank and effectiveness as judged by CMP managers.

4.4.2 Process Indicators

Table 4.1 lists the tools we believe to be in use by states' CZM programs and the indicators that provide evidence of their use. The tools fall into three categories: Proactive, supportive and reactive. *Designation*, *SAMPs*, and *partnerships* are proactive tools used by the states to signal local cities and towns that specific waterfronts are deteriorated, that it is state policy that they should be revitalized, and that the state CMP will assist them in the process. *Financial assistance*, *technical assistance*, producing *guidance documents* and undertaking *education and training* programs are tools the states can use to support local revitalization efforts. When local waterfront plans and projects are proposed, *LCP amendment review*, and *project review* and *environmental review* are tools states may use to react to local initiatives and ensure CZM objectives are being met.

4.4.3 Scoring Tools and Processes Used

In assessing the states' contributions to waterfront revitalization we feel a higher weight should be given to the use of *proactive* tools than *reactive* tools. And some *supportive* tools are more important than others—financial assistance to local governments, in particular. We therefore propose weighting the tools in use as shown in Table 4.2. These weightings will be used in

TABLE 4.1: PROCESS INDICATORS

Process/Tool	Indicators
Designation of Deteriorated Waterfront Districts	Number and identity of waterfront districts designated for W-R in states' CZM program documents
Financial Assistance to Local Governments	Dollars awarded through grants to cities for developing W-R plans or implementing W-R plans and projects; number and identity of revitalizing waterfront districts receiving grants
Technical Assistance to Local Governments	Character of W-R technical assistance projects undertaken by states' CZM programs; number and identity of revitalizing waterfront districts receiving technical assistance
Guidance Documents and Publications	W-R guidance documents developed by states' CZM programs for use by local governments or others; number and identity of revitalizing waterfront districts using guidance documents
Education and Training	Workshops, seminars, conferences and short courses sponsored or co-sponsored by states' CZM programs; number and identity of revitalizing waterfront districts participating
Partnerships	Partnerships developed by state CMP with or between cities and other agencies and institutions; number and identity of revitalizing waterfront districts engaging in partnerships with, or fostered by state CMP
Special Area Management	Special Area Management Plans (SAMPs) undertaken that identify revitalization opportunities; number and identity of waterfront districts affected by SAMPs
Local Coastal Program Review	Authority in state to review LCPs; number and identity of revitalizing waterfront districts affected
Review of Waterfront Projects	Authority in state to review waterfront projects; number and identity of revitalizing waterfront districts affected
Review of Impacts on Critical Resources and Areas	Authority in state to conduct environmental reviews of plans and/or projects; number and identity of revitalizing waterfront districts affected

assessing the contributions states have made to achieving the on-the-ground results in revitalizing waterfront districts discussed below.

TABLE 4. 2:WEIGHTING OF WATERFRONT REVITALIZATION TOOLS

Tool	Weight
Designation	2
SAMPs	2
Partnerships	2
Financial assistance	4
Technical assistance	2
Guidance documents	2
Education and training	2
LCP amendment review	1
Project review	1
Environmental review	1

4.4.4 Process Outcomes

Table 4.3 lists indicators of process (intermediate) outcomes which result from the application of waterfront revitalization tools. This list oversimplifies the breadth of studies that might be undertaken before waterfront revitalization projects are begun: soils engineering, environmental surveys and assessments, market feasibility, archeological surveys, urban design studies, etc. But the outcome of these studies will likely be the development of a waterfront plan and strategies for its implementation.

TABLE 4.3: PROCESS OUTCOMES

Process Outcome	Indicators
W-R planning or design studies	<p>Number and identity of waterfront districts where CZM financial, technical, or other assistance resulted in—</p> <ul style="list-style-type: none"> • W-R plans or design studies underway • W-R plans or design studies completed

4.4.5 On-the-ground Outcome Indicators

Implementation of waterfront plans may begin with a single public demonstration project, such as a viewing tower, or improvements to public infrastructure—removing abandoned railroad

tracks and resurfacing the right of way for bicyclists and pedestrians, for example. Further public and private improvements follow until the entire district is revitalized, as described above in 4.2.1.

In some cases—particularly small town waterfronts—projects may be undertaken without benefit of a formal plan, simply because they are needed and have public support. A new boat landing, a short boardwalk, or a waterfront streetend park can stand alone as a simple improvement that leads to private investment in adjacent properties.

Indicators of progressive on-the-ground outcomes are listed in Table 4.4. They are designed to capture two dimensions of revitalization: *stage* of revitalization achieved and *scope* of resulting improvements. The first measure enables us to account for and compare achievements across

TABLE 4.4: ON-THE-GROUND OUTCOMES

On-the-ground Outcomes	Indicators
Stage of waterfront revitalization achieved	<p>Number and identity of waterfront districts where CZM financial, technical, or other assistance resulted in—</p> <ul style="list-style-type: none"> • waterfront improvement project underway • one or more projects completed • infrastructure and multiple projects developed • completely revitalized waterfront (meeting the definition laid out in 3.1 above)
Scope of waterfront revitalization achieved	<p>Number and identity of waterfront districts that have incorporated the following features, activities or programs—</p> <ul style="list-style-type: none"> • public access—parks, plazas, boardwalks, viewing towers, interpretive signage, other access • marine activity—guest boating facilities, commercial boating facilities, fishing piers, water tours, other marine • historical/cultural structures/sites conserved • landside economic activity—retail/restaurant, hotels, marine industries, tourist centers, other landside • clean-up/environmental restoration • festivals or maritime events

vastly different scales of waterfronts; the second, by focusing on the kinds of waterfront improvements that are developed, enables us to discriminate between small, simple waterfronts and those of large metropolises.

4.4.6 Scoring On-the-Ground Outcomes

Simple numerical "scores" can be constructed to indicate the stage of revitalization reached in a waterfront district and the aggregate scope of the resulting improvements. Districts would be scored one point for starting a waterfront plan, and two points for completing one. Additional points would accrue for undertaking a development project, completing a project, completing multiple projects and infrastructure upgrades, and for completely revitalizing the waterfront.

Similarly, points would accrue for each kind of improvement achieved that advanced CZM goals—enhancing public access, giving priority to coastal dependent industry, restoring degraded environments, conserving historic sites and structures, etc. Landside developments that otherwise enlivened the waterfront, as well as waterfront festivals and other events, would add to the district's score.

Purists might argue that improving public access, or contributing to the retention of coastal dependent industries should receive more weight than developing waterfront restaurants, retail establishments, or hotels. Our position will be that each kind of waterfront improvement listed above has the potential for enhancing the vitality of the whole waterfront district for the benefit of a broad spectrum of users. We deliberately excluded from this list uses that have predominately private benefits and exclude the public from the waterfront—in particular, private housing and commercial office space. Such uses may be necessary to produce revenues in adaptively reused buildings, worthy in their own right for conservation. Our points go to conserving the structure, not to the residential or office uses it houses.

Such "scores" should not be equated with "effectiveness" however. Clearly, the scoring protocol described above would tend to favor districts located in larger, more complex waterfront communities over those in small towns; and, older, more mature CZM programs over those that were approved more recently.

4.4.7 Assessing Effectiveness

Any one of these scores, taken in isolation, yields only partial information about the effectiveness of a state's CMP: the number of waterfront districts susceptible to revitalization depends upon the economic history and geography of the region, and the fate of its waterfront industries in recent times; the stage of revitalization achieved depends to some extent on the age of the CMP and when revitalization was declared an important issue for CZM; and, the potential scope of redevelopment—particularly private landside development—depends upon factors beyond the control of the state CMP or local planners, such as proximity of the waterfront to the central business district or other pedestrian-rich nodes of commercial activity. Context factors—regional economic conditions, scale and severity of industrial decline and abandonment, coastal

amenities for tourism and recreation—are, perhaps, determining in the flow of investment into old waterfronts.

None of these outcomes—number of waterfronts, stage and scope of redevelopment achieved—can be attributed to a state's CMP unless there is established a linkage back to the use of CZM tools; otherwise the credit properly belongs to the cities themselves.

4.5 Data Sources

4.5.1 Context Factors

There is a paucity of consistent, systematically-organized data on towns and cities in the states' coastal zones at both state and national levels. Some state program documents provided general descriptions of the condition of their urban waterfronts at time of program approval and identified some of the causes of abandonment or deterioration. A few other states produced a list of their coastal towns. However, except where specific waterfronts were designated as Geographic Areas of Particular Concern (GAPCs) in a state's coastal program, the number of waterfront communities and districts that might be targeted for revitalization in each state was unknown.

Atlases and general geographic sources were used to identify context factors where the state's program documents were silent.

4.5.2 State Laws and Policies

State CZM Program documents—FEIS's in most cases—provided baseline information about the structure, scope and legal authorities of each states' program and the way it addressed waterfront revitalization. Written and/or oral responses to our questionnaire, discussed below, augmented and updated information gleaned from program documents and identified any significant program changes. Other national CZM studies, notably Knecht and Cicin-Sain's (1995) publication reporting the results of his survey of professionals' opinions on CZM accomplishments, Brower's (1991) expenditure-based study of program achievements, a recent CZMA §309 program improvements study (Coastal Resources Center, 1994) and an OCRM “work in progress” database detailing §312 state CMP program evaluation information from the last twenty years, were consulted for richer insights into the operational aspects of states' programs. For those states that neither returned our phone calls nor responded to our questionnaire the information available in these published sources constituted our sole source.

4.5.3 CZM Processes and Tools

While the availability of certain tools to effect waterfront revitalization could be inferred from official program documents (e.g. oversight of local coastal plans or review of permits issued by local government, etc.), interviews with state officials provided the richest source of information. Some state's were unable to identify the tools used in specific waterfront communities or districts, preferring instead to characterize tools used in a statewide context. This is not surprising since some of the generic tools identified in our survey (e.g. education and training, guidance documents and publications) are usually available to all local jurisdictions—sometimes in other states—but establishing the fact of their use in a specific waterfront is difficult. For example, did staff from a specific coastal community attend a state CZMP-sponsored workshop, or read a guidance document published by the program? And, if they did, was the information actually used in undertaking a waterfront revitalization plan or project?

4.5.4 Process and On-the-Ground Outcomes

To identify waterfront communities and districts where revitalization efforts had taken place, we relied primarily on written survey data and telephone interviews with state officials. In turn, they used state CZM grants awards data, where available, to augment staff's familiarity with their state's waterfronts. However, where states did not respond to our survey, we had no access to consistent, systematically-organized national data on §306 and §306A expenditures to point us towards specific communities and districts where CZM-funded waterfront plans and projects had been undertaken. Similarly, the paucity of consistent, systematically-organized data on towns and cities in the states' coastal zones at both state and national levels referred to earlier, severely limited our capability to assess the completeness of outcome data collected from state officials.

The scope of the research tasks undertaken by the investigators generally precluded contact with officials or staff in individual cities revitalizing their waterfronts—the sheer numbers of phone calls would have overwhelmed our graduate student assistants and telephone resources. Unfortunately, it is at the municipal level where the richest data and qualitative information are to be found: project-scale financial information, attendance records of waterfront festivals and events, "before and after" photographs showing the design features of redeveloped waterfront sites. We simply had neither the time nor resources to explore this rich layer of data².

²For this level of detail the reader is referred to sources such as Ann Breen and Dick Rigby's handsome publication, *Waterfronts: Cities Reclaim Their Edge* which documents 75 mostly-North American, award-winning waterfront projects through color photographs and text, or other publications of The Waterfront Center that address design quality and other issues in revitalizing urban waterfronts.

4.6 Survey design, testing, and refinement

A questionnaire was designed to gather responses to a list of questions based on the process and outcome indicators outlined above. During December, 1995, and January, 1996, the survey was mailed to five states, and follow up interviews were conducted with state CZM program officials in SC, HI, PA and OR. The poor responses to several detailed waterfront district land use and land area questions caused substantial revisions to, and simplification of, the questionnaire before a second version was mailed to another five states in February, 1996. Minor adjustments were made following review of the preliminary survey results by the Study Team during its second meeting in Washington, DC., March 17-19, 1996, and the revised questionnaire was mailed to all 29 states and territories with approved coastal programs.

Between the team meeting in March and the July 16-17 meeting in Seattle, approximately ten states had completed and returned surveys. As the data were being processed and our methodology tested, it became clear that more detailed information was needed to better link the use of CZM tools and processes with the outcome data that the states had provided. It also had become apparent that we were unlikely to get complete outcome data from all the states, and that, given the time and staff constraints, it would be necessary to prioritize our efforts for the remainder of the data gathering phase of the project.

Consequently, in September 1996, a supplementary survey instrument was developed and targeted at the states most likely to have been active in waterfront revitalization. Henderson's analysis of states' §306 & §306(A) expenditure categories (in Brower, et al 1991) provided an independent basis for identifying states that had had active urban waterfront revitalization programs underway between 1986 and 1990 (in Brower, 1991). Augmented by information gained from states that already had responded to our primary questionnaire by the Spring of 1996, we generated a list of 14 states to receive a supplementary survey. These states were surveyed intensively during the period from early September, 1996, into early January, 1997. (A copy of the final version of the questionnaire appears as Appendix C.)

Responses to the survey questions were used to construct "profiles" of each state's coastal management program and the way it addressed the national objective of revitalizing urban waterfronts. The state profiles provided the backbone for fleshing out a national assessment of the overall effectiveness of CZM.

4.7 Data Management

Using Panorama™ for the Macintosh, a database was created with a record for each waterfront district and summary records for state and national aggregates. Each record contained fields for CZM policies, CZM grant funds and total dollars invested, stages of revitalization reached, scope of revitalization achieved, and CZM tools utilized. To permit comparison among states,

weighted scores were constructed for stage and scope of revitalization, and for the range of CZM tools available to and utilized by the state. From this database we created a "profile summary" for each waterfront district, state and the nation as a whole. (Appendix A contains national and state profile summaries.)

4.8 Data Reliability and Quality

4.8.1 Institutional Memory

Our heavy dependence on surveys and interviews for collecting process and outcome data presented some insuperable problems. Many states' programs are now 15-20 years old and original senior staff and program managers have retired or moved to other positions. As a consequence, institutional memory of program activities that occurred even as recently as a decade ago has been lost. Files containing the early history of the coastal program, in some cases, have been archived or are otherwise inaccessible, and computer-accessible information is often limited in age, depth and completeness. In short, many states could not answer—or answer easily—some of the most basic questions concerning their activities in urban waterfronts since time of program approval. (Appendix D contains a table showing, state-by-state, the source and quality of data we used to construct state profiles.)

4.8.2 Multiple Viewpoints and Interpretations

Many of our questions required judgment and interpretation: ranking the importance and effectiveness of CZM tools, assessing the importance of waterfront revitalization as an issue in the state at some past time. Different individuals made different judgment calls on these questions. To whose opinion, then, to give most weight? And, how should these opinions be assessed against independent data sources?

4.8.3 Agency Staff Loads

Finally, some states' programs have suffered severe staff cuts in recent years; fewer staff remain to carry out the same or expanded work loads. And like the sheep on the commons, sometimes there were just too many of our investigators and graduate student assistants grazing on state programs staffs' time... Understandably, but regrettably, the demands we placed on these staff, in some cases, overwhelmed their capacity to respond in a timely fashion, if at all. Several states could provide descriptive data for only a portion of the waterfront districts they had assisted in revitalizing, thereby severely limiting a complete and accurate treatment of their states' program achievements.

4.8.4 Investigators' Biases

The investigators are much more familiar with the West Coast states' CMPs than with those from other regions. In some cases they or their colleagues have been professionally involved with revitalizing waterfronts in their home states. Consequently, the contextual information as well as process and on-the-ground outcome data are more richly represented in these states' profiles and analyses.

5.0 Research Findings

5.1 National Results

5.1.1 Overview

This study has identified 303 urban waterfront districts in the nation's coastal zone that have benefited from the 25 state and territorial coastal management programs for which we have substantially complete data. The real number of revitalizing waterfronts is undoubtedly much higher. These waterfront districts range in size and complexity from small bayfront villages along coastal estuaries to redevelopment areas abutting the densely populated metropolitan shores of some of the nation's largest cities.

Table 5.1 shows the aggregate national results of the study, including summary data on states' policies, the tools and processes used to implement those policies, and the stage of development and scope of outcomes achieved.

5.1.2 Stage of Revitalization

Revitalization is "complete" (as defined in 4.2.1 above) in only 10% of these districts identified in this study, but in more than one third of these waterfronts investments have been made to improve infrastructure and develop multiple projects. In an additional 14% of these districts, at least one redevelopment project is underway. Revitalization plans have been developed with CZM assistance or funding in 200 waterfront districts, and are currently underway in 42 others.

5.1.3 Scope of Revitalization

The most common waterfront improvements undertaken are those which enhance important national CZM goals, i.e. increasing public access, fostering water-dependent uses and activities, conserving important cultural and historic resources, and restoring degraded urban coastal environments. Environmental cleanup has been undertaken in at least 55 sites. To reconnect people with their waterfronts, over half the revitalizing districts have developed shoreside parks; and over one third have built fishing piers, or boardwalks. Viewing towers or interpretive signage to augment physical access to the shore are installed in 25% of the districts.

TABLE 5.1: WATERFRONT REVITALIZATION—NATIONAL RESULTS

POLICIES (Number of States)	OUTCOMES (\$s; # waterfront districts)	OUTCOMES (# waterfront districts)
Waterfront Revitalization	Funding (\$000's)	Other CZM Goals
Revitalization 15	CZM Funds: \$30,100.22	Public Access
Other CZM Goals	Total Funds: \$429,783.75	Parks 163
Public Access 26	No. of Waterfront Districts	Plaza 51
Water Dependency 29	303	Boardwalks 127
Hist/Cultural Conservation 29	Stage of Development	Viewing Towers 79
Environmental Restoration 19	Plan Underway 42	Signage 86
Other Policy 4	Plan Complete 200	Other Access 43
TOOLS	Project Underway 32	Marine Activity
Designation 49	Multiple Projects Underway 31	Guest Boating 109
Financial Asst. 208	Infrastructure & Projects Complete 112	Comml. Boating 78
Technical Asst. 168	Revitalization Complete 30	Fishing Piers 108
Guidance Documents 74	Stage Score: 3.5	Water Tours 43
Education & Training 53		Other Marine 36
Partnering 180	SCOPE OF DEVELOPMENT	
SAMPs 17	Landside Development	Other
Local Coastal Prog. Review 83	Retail/Restaurant 82	Historic/Cultural Conservation 72
Project Review 128	Hotels 33	Env. Cleanup/Restoration 55
Environmental Review 103	Marine Ind. 63	Festivals & Events 72
Other Tools 2	Tourist Centers 55	
	Other Landside 33	

Notes: Numbers in cells refer to the number of waterfront districts in which that tool has been used, that stage or scope of redevelopment achieved, or other CZM objective realized.

Marine activities for visitors and tourists include harbor tours (43), guest facilities for recreational boating activity (109), and other miscellaneous water-based activities such as historic vessels, boat ramps, charter fishing boats, dinner cruises and marine educational facilities. Facilities for commercial boating activity were found in 79 of the districts harbors; other commercial marine facilities included ferry terminals and boatyards. In at least 20% of the communities, a healthy complement of landside marine support industry has been fostered; the

list includes cargo handling facilities, fish auction houses, marine science centers, and ferry terminals.

Enlivening the landside of one-in-four of the districts are restaurants and/or retail establishments; a smaller number have tourist services centers (55) and hotels (33). Other facilities on land that were identified included convention centers, aquariums, casinos, marine science educational facilities and, poignantly, fishermen's memorials to commemorate those lost at sea.

Historic buildings and sites have been restored, conserved or protected in almost one quarter of the waterfront districts. Festivals and other events that celebrate communities' linkage to the sea took place at over 70 sites.

5.2 CZM's Contributions to Waterfront Revitalization

5.2.1 Overview

CZM's unique contributions to this impressive collective achievement are found in the realization of state coastal management programs' goals and policies in urban waterfront plans and projects. The mechanisms by which these goals and policies are realized are awards of CZM grants, and the use of other CZM tools and processes to assist coastal cities undertake waterfront revitalization.

Table 5.2 shows a synoptic view of the approaches used and outcomes achieved by state CZM programs in addressing this issue area. For each state, the flow of program activity is shown moving from left to right across the table. First, the evolution of the importance of the issue, as perceived by state program managers, is represented as (H)igh, (M)edium or (L)ow at three points in time: when the state's CMP was first approved; in 1980, when the amendments to the CZMA were enacted; and, in 1995-96 when this study was being undertaken. Second, the policies in the state's CMP which bear on the issue are listed. Third, the tools and processes used by the state are shown in two ways—those in *general use* throughout the state, and those whose use has been documented in *specific waterfront districts*. Fourth is shown the number of waterfront districts that have undergone, or are undergoing revitalization, in which the state CMP has invested CZM resources—§306 or §306A funds, state CZM funds, state CMP staff time, etc.; and fifth, the amount of federal and state CZM funds invested in them. Next is shown the *estimated* total public and private investment in these waterfronts. In the seventh and eighth columns, are repeated the two measures of *maturity* of the revitalization process and its on-the-ground results—a "stage" of development score and a "scope" of development score, discussed above in section 3.4.5. In Table 5.6 these variables are used, separately and in combination, to reveal groupings of states where comparable on-the-ground results have been achieved.

State	Evolution of Issue [†] Importance	CMP Policies ^{††} Affecting Waterfront Revitalization	Tools* Available/ <i>Used</i>	Number of Active Waterfront Districts	Documented CZM \$s (000s) Invested	Documented Total \$s (000s) Invested	Stage Score (Max: 6.0)	Character Score (Max: 16.0)	Tools Effecti- veness
AK	MMH	WD HC ER	Des <i>FA TA GD ET Part SAMP LCP PR</i>	14	Yes	Yes	2.1	3.7	Unk.
AL	LLL	PA WD HC	Des	0	NA	NA	NA	NA	NA
AS	MMH	PA WD HC	Des <i>FA TA Part PR ER</i>	1	Yes	Yes	4.0	5.0	Unk.
CA	MML/M	WR PA WD HC ER	<i>Des FA TA GD ET Part LCP PR ER</i>	16	\$15817.70	\$51,627.00	3.8	3.2	2.54
CNMI	Unk.	WR PA WD HC	Des	Unk.	Unk.	Unk.	Unk.	Unk.	Unk.
CT	HHH	WR PA WD HC ER OP	<i>Des FA TA ET Part LCP PR ER</i>	9	\$105.20	\$291,025.00	5.3	5.6	3.00
DE	LLM	PA WD HC ER	<i>TA GD PR ER</i>	Unk.	Unk.	Unk.	Unk.	Unk.	Unk.
FL	MMH	WR PA WD HC	Des <i>FA TA GD ET Part LCP PR ER</i>	14	\$102.96	\$331.42	2.8	3.0	2.50
GUAM	MMM	PA WD HC ER	Des <i>FA TA GD Part SAMP PR ER</i>	1	\$0.00	\$0.00	1.0	0.0	Unk.
HI	LLL	WR PA WD HC OP	<i>Des Part PR ER</i>	1	\$0.00	\$0.00	5.0	16.0	Unk.
LA	LLL	WD HC	<i>Part LCP PR ER</i>	0	NA	NA	NA	NA	NA
MA	HHH	WR PA WD HC ER OP	<i>Des FA TA GD ET Part SAMP LCP PR ER OT</i>	13	\$0.00	\$0.00	3.2	2.9	3.00
MD	MLL	WR PA WD HC ER	Des <i>FA TA GD ET Part PR ER</i>	15	Yes	89.55	2.5	3.6	2.60
ME	LLM/L	WR PA WD HC	<i>FA TA GD ET Part PR</i>	19	\$200.50	\$1,259.13	3.7	3.8	Unk.
MI	HHH	PA WD HC ER	Des <i>FA TA GD Part PR ER</i>	20	\$3,464.60	\$49,499.90	5.8	5.2	2.61
MS	HHH	WR PA WD HC ER	<i>Des FA TA GD ET Part SAMP PR ER</i>	8	Yes	\$0.00	3.3	5.3	2.00
NC	LLH	PA WD HC	<i>FA TA GD PR</i>	8	\$701.48	\$22,043.32	1.5	4.8	Unk.
NH	MMM	WR PA WD HC ER	Des <i>FA TA Part PR ER</i>	10	\$134.00	\$1,201.00	3.6	3.3	Unk.
NJ	MHH	WR PA WD HC ER	<i>Des FA TA GD ET Part SAMP PR ER</i>	7	Unk.	Unk.	3.0	8.3	2.50
NY	-HH	WR PA WD HC ER OP	Des <i>FA TA ET Part LCP PR ER OT</i>	45	\$2,741.25	\$2,978.95	3.3	5.6	Unk.
OR	MM/HH	WR PA WD HC ER	Des <i>FA TA GD ET Part SAMP LCP PR ER</i>	11	\$274.78	\$2,916.33	3.7	7.1	2.82
PA	HHH	PA WD HC ER	<i>Des FA TA GD ET Part SAMP LCP PR ER</i>	21	\$3,135.73	\$3,135.73	2.5	3.3	2.15
PR	MLL	PA WD HC ER	<i>TA PR</i>	3	\$0.00	\$0.00	4.0	7.0	Unk.
RI	Unk.	WR PA WD HC ER	Des <i>FA TA GD ET Part SAMP ER</i>	Unk.	Unk.	Unk.	Unk.	Unk.	Unk.
SC	Unk.	PA WD HC ER	Des <i>FA TA GD ET Part SAMP LCP PR ER OT</i>	9	\$0.00	\$0.00	3.6	7.4	Unk.
VA	- LL	PA WD HC	Des <i>FA ET Part SAMP PR ER</i>	12	\$276.80	\$475.30	1.4	1.7	Unk.
VI	Unk.	WD HC	<i>SAMP</i>	Unk.	Unk.	Unk.	Unk.	Unk.	Unk.
WA	HMM	WR PA WD HC ER	<i>FA TA GD ET Part SAMP LCP PR ER</i>	28	\$1,670.22	\$1630.12	4.2	9.8	2.14
WI	MHH	PA WD HC ER	<i>FA TA GD ET Part SAMP PR</i>	19	\$1,450.00	\$1450.00	5.1	4.7	3.00
US		WR:15 PA:26 WD:29	Des:21/7 FA:22 /15 TA:23/11 GD:19/7 ET:16/7						
TOTALS		HC:29 ER:19 OT:4	Part:23/14 SAMP:13/7 LCP:11/7 PR:25/10 ER:21/10 OT:3/2	304	\$30,099.22	\$429,783.75	3.5	5.1	2.52

TABLE 5.2: STATE RESULTS—WATERFRONT REVITALIZATION

[†] Issue Importance abbreviations: H: High; M: Medium; L: Low. Issue importance in chronological order—at time of program approval, 1980 CZMA amendments, and now.

^{††} Policies abbreviations: WR = Revitalization; PA = Public Access; WD = Water Dependency; HC = Historic/Cultural Conservation; ER = Environmental Restoration; OT = Other tools, not listed above.

• Tools abbreviations: Des= Designation of waterfronts as deteriorated; FA = Financial Assistance; TA = Technical Assistance; GD = Guidance Documents; ET = Education and Training; Part = Partnering with cities and/or other agencies; SAMP = Special Area Management Planning; LCP = Review of Local Coastal Programs; PR = Review of permits for waterfront projects; ER = Environmental review of plans and/or projects; OT = Other tools, not listed above. *Tools listed in italics are documented to have been used in specific waterfront districts.* Tools listed in plain text are reported in general statewide use only.

5.2.2 Issue prioritization

Today, urban waterfront revitalization is presently considered a high priority in 13 of the 29 state CMP's, a medium priority in four states and low to medium-low priority in eight states; four states did not rate the priority of the issue. Prioritization of waterfront revitalization gained in importance from program inception to the present in nine states, stayed the same in twelve, and decreased in importance over time in four states. (See Table 5.3.) What is surprising is that some of the most active CMP's in revitalization efforts rated the issue as a low priority at time of program approval.

TABLE 5.3: STATES' COASTAL PROGRAM MANAGERS' RATING OF THE IMPORTANCE OF WATERFRONT REVITALIZATION AS AN ISSUE IN THEIR STATES

Issue Importance	At Program Approval	1980 Amendments	Present	Direction of Change
High/Med-High	7	8	13	9 More Imp.
Medium	11	7	4	12 Same Imp.
Low/Med-Low	7	8	8	4 Less Imp.
Unknown	4	4	4	4 Unknown
TOTALS	29	27	29	29

Several contextual factors affect a state's determination of issue importance. For example, in California, the importance of waterfront revitalization diminished when state bond funding ran out; and, in Washington State, following several years of intensive program activity addressing the issue, there was a switch in CMP focus to natural resource issues as high levels of sustained population growth threatened wetlands and other critical areas.

5.2.3 State CMPs' Policies

Surprisingly, this study found that in only 15 of the 29 states' CMPs was there policy language explicitly addressing *waterfront revitalization*; and that, among the 14 states without clear policy guidance in this area are found some of those most active in waterfront revitalization, as indicated either by number of revitalizing waterfronts, or the stage and scope of revitalization achieved, e.g. Michigan, Pennsylvania and Wisconsin. (See Table 5.2).

On the other hand, 26 states' CMPs contained explicit policies promoting *public access*, and all 29 had language protecting *water-dependent industry*, and conserving important *historic sites and cultural features*; and 19 states CMPs contained policies promoting *restoration of degraded coastal environments*. These affirmative coastal policies give guidance on the shape and content of waterfront revitalization.

Other policies identified as helpful in achieving appropriately-sited, high-quality waterfront redevelopment included *visual design standards* to control views of the water from land and preserve appropriate scale and massing of development; and, *harbor management planning*, to

ensure compatibility between land and water uses and the efficient utilization of scarce shoreline space.

5.2.4 Coastal Management Tools Used

In the 244 individual waterfront districts for which we have *tools* data, the most frequently used coastal management tools used by the states' CMPs to assist communities redevelop their waterfronts were, in order of use, *financial assistance* (208 districts), *partnering* (180) and *technical assistance* (168). (See: Table 5.1, above.) In one hundred-twenty five districts all three tools were used as a suite. Managers usually ranked these tools first or second in importance for addressing this issue in their programs. (See: Table 5.4, below.)

Tools used to affect the quality of waterfront projects and to ensure other coastal management goals were being addressed included technical *reviews of waterfront projects* (128) and review of their *environmental impacts* (103). These two tools were applied jointly in 89 waterfronts and were ranked, on average, second by program managers who used them. Review of *amendments to local coastal programs* as a way to ensure statewide interests were being addressed in waterfront revitalization plans, occurred in 83 districts, and managers who used this tool placed it in a third ranked tier. *Designation* of deteriorated waterfront districts for attention in states' programs occurred in less than 50 instances, but those managers whose programs used this tool ranked them, on average, better than second in importance to technical and financial assistance, and partnering.

Table 5.4: IMPORTANCE & RANKING OF TOOLS—SUMMARY FINDINGS

Tool	Importance		Rank	
	Mean	Times Scored	Mean	Times Ranked
Fin. Asst.	2.6	14	1.5	13
Partn.	2.5	13	1.7	12
Tech. Asst.	2.4	14	1.3	11
Proj. Rev.	2.4	14	2.0	12
Env. Rev.	2.2	13	2.0	9
SAMP	2.1	9	2.0	5
LCP	2.1	8	2.6	7
Designation	1.9	12	1.9	7
Ed. & Tr.	1.9	12	2.0	7
Guid. Docs.	1.8	14	2.0	11

(Importance scores High: 3; Med: 2; Low: 1. Rank 1st: 1, 2nd: 2, 3rd: 3)

Table 5.4 shows, in summary form, the way CMP managers in the states' assessed the coastal zone management tools that they used to effect waterfront revitalization in their states. These tools, identified earlier in Table 4.2, above, were rated for their importance—(L)ow, (M)edium, (H)igh—and the top three were ranked. Within the state's most active in waterfront

revitalization there is a consistent use of three tools and a high ranking of their importance. Clearly, *financial assistance* to local government to develop plans and projects through the §306 and 306A grant programs, staff *technical assistance* to local communities, and *partnering* with federal, state, and local agencies, and private entities are the most widely used *suite* of tools. And state CMP officials judged them to be the most important.

5.2.4.1 Financial Assistance

The study has identified over \$30 million in federal and state CZM grants awarded to local governments undertaking waterfront revitalization plans and projects in two thirds of the waterfront districts. Because many states were unable to provide expenditure data, this number greatly underestimates the true magnitude of CZM funds invested in revitalizing the nation's urban waterfronts. The amount of non-CZM public funds invested in those same waterfronts is also largely unknown.

We had hoped that *total \$s invested* would provide a sound measure of the propensity of state CMP's investments in waterfronts to attract other public and private capital. Unfortunately, this was the most elusive datum we sought, and our results are spotty and incomplete. Private capital investment in physical waterfront improvements and programs for waterfront art and events is vastly greater than the \$430 million identified through the study's surveys. For example, one state—Connecticut—identified private/public funding ratios of 1,000:1 resulting from state waterfront revitalization expenditures³—a "return" 77 times greater than the 13:1 ratio documented in this study! And in Michigan, the revitalization of Detroit's deteriorated industrialized waterfront was initiated by a CZM-funded \$82,000 grant, "Linked Riverfront Parks Master Plan". The project was designed to create several parks along the Detroit River that are linked by a bike path system. This linked park system has stimulated millions of dollars in private investment and has created an estimated 1,200 new jobs. The investment resulted in \$37 million of additional federal, state and local government funds. In turn, those dollars have stimulated \$210 million of private investment in housing, office and commercial development.

5.2.4.2 Technical Assistance and Partnerships

Providing *technical assistance* to local government, and engaging in *partnerships* with individual communities and other agencies lead the tools used in more than half of the identified waterfronts in which states' programs have been engaged, and were used jointly with financial assistance in 125 waterfront districts. Technical assistance by state CMP staff comes in a variety of forms including assistance in preparation of waterfront revitalization plans to ensure compliance with state standards; providing expertise to address specific, substantive issues in waterfront revitalization such as historic preservation, or financing public projects; or help in resolving complex environmental clean-up tasks that require multi-agency cooperation.

³See Connecticut's state profile in Appendix_.

Most state programs characterized their relationship with waterfront cities as the principal *partnership* for effecting waterfront revitalization, particularly in cases where the participation of cities in waterfront planning was voluntary. Productive partnerships have been forged with other state agencies having community development or planning assistance programs, with sea grant colleges' advisory/extension program staff for educational purposes, and with other federal agencies.

5.2.4.3 Other Processes and Tools

Education and training programs and use of *guidance documents* produced for local governments have been utilized in less than a quarter of the districts, but this number is "soft" and probably underrates the use of these important tools nationally—guidance documents produced in one state may find use in neighboring states or across the nation. In some cases, this pair of tools is used jointly to promote waterfront revitalization and to educate local officials about grants and other assistance programs available from state and federal sources.

State *review* by CMP staff of *Local Coastal Programs (LCPs)* and amendments to them, is an important tool to affect waterfront revitalization in states where LCPs are mandated, but also in states where voluntary local coastal planning, once undertaken, is subject to state review. Compliance with other state CMP goals—enhancing public access, protecting water-dependent industry, etc.—can be assured during review of plan amendments designed to implement waterfront redevelopment objectives. Review of LCPs was utilized in more than 25% of revitalizing waterfront districts, nationwide.

Project review and *environmental review* by the states' CMP agencies were, respectively, the fourth and fifth most-used tools. Through these reviews of waterfront redevelopment projects, Public Trust rights can be secured and environmental protection assured. Such reviews are carried out through specific authorities given to state CZM agencies to review locally-issued permits, through consistency provisions which empower those same agencies to review permits or licenses issued by other state or federal agencies, or through National Environmental Policy Act (NEPA) and state-level "little NEPA" environmental reviews of governmental actions.

Special Area Management Plans (SAMPs) appear to have contributed little to revitalizing waterfronts; we could identify only 17 waterfront districts in seven states that had been affected by use of this tool, and not all benefited, as some SAMPs failed to be adopted. A SAMP's highest value for this issue area appeared to be in identifying deteriorated urban waterfront districts within larger geographic zones (bays, estuaries, etc.) and the opportunities these districts might present for revitalization; or, designating certain shorelands surplus to the needs of ports and marine industry, and zoning them for urban development. Such lands become surplus either because excessive areas of shorelands were zoned for industrial use at time of program approval

and demand for these uses did not materialize, or because major industries have closed their plants and left behind underutilized or vacant sites.

We discovered 49 waterfront districts in seven states that had received formal *designation* in states' CMPs either as *geographic areas of particular concern* (GAPCs) eligible for federal §306 assistance, or some similar designation under a state program provision targeting them for special planning attention. In many cases these were active port areas threatened by intrusion of non water-dependent uses. Focusing limited financial and staff resources on high priority waterfront districts can be particularly appealing to states wishing to take a strongly proactive role in waterfront revitalization.

Other tools identified during interviews included *advocacy* of local waterfront revitalization plans by state CMPs during contested project permitting proceedings; state review of the "scoping" of work plans developed by local ports and municipalities prior to undertaking *port master plans*; and, mandated *periodic review of LCPs* to check that land and water use zoning and regulations are functioning as intended.

5.3 State Outcomes

5.3.1 Overview

There is no evidence that any of the states for which we have outcome data have been ineffective in addressing waterfront revitalization. The words "extent" and "maturity," as used below, do not capture the whole scope of waterfront revitalization quality or context. Small numbers of waterfronts in which quite simple kinds of improvements have been achieved through CZM funding and technical assistance may well address the needs of those communities for improved access and amenity; or, reaching a workable plan for a single, major, metropolitan waterfront through a CMP's partnerships with other agencies, and breaking ground for the first symbolic public or private improvement, may represent a monumental achievement.

There are, however, major differences among states in the numbers of waterfronts they have helped revitalize, the stage of revitalization reached and the scope of waterfront improvements incorporated. Table 5.5 shows the derivation of the nine groups of state programs displayed as a matrix in Table 5.6. These groups are based on their scores (High, Moderate, Low) for program *extent and maturity*. "Stage" and "scope" scores from Table 5.2 are collapsed to form one "maturity" score (their normalized mean—with a range of 0.0-1.0).

TABLE 5.5: STATE COASTAL MANAGEMENT PROGRAM GROUPINGS BASED ON EXTENT & MATURITY OF WATERFRONT REVITALIZATION RESULTS

State	ExtentS core	Extent Group	Stage Score	Stage Group	Scope Score	Scope. Group	Maturity	Matur'y Group	Overall Group
WA	28	H	4.20	H	11.00	H	0.62	H	HH
WI	19	H	5.10	H	4.70	M	0.57	H	HH
HH Group	47		4.65		7.85		0.60		HH
PA	21	H	2.70	L	3.30	L	0.32	L	HL
HL Group	21		2.70		3.30		0.32		HL
MI	20	H	4.00	H	5.20	M	0.48	M	HM
ME	19	H	3.70	M	3.50	M	0.42	M	HM
NY	45	H	3.30	M	6.20	H	0.40	M	HM
HM Group	84		3.67		4.97		0.43		HM
HI	1	L	5.00	H	16.00	H	0.92	H	LH
PR	3	L	4.00	H	7.00	H	0.56	H	LH
NJ	7	L	3.00	M	9.80	H	0.52	H	LH
LH Group	11		4.00		10.93		0.67		LH
NC	8	L	1.50	L	4.80	M	0.28	L	LL
GUAM	1	L	1.00	L	0.00	L	0.09	L	LL
LL Group	9		1.25		2.40		0.19		LL
AM SAMOA	1	L	4.00	H	5.00	M	0.49	M	LM
MS	8	L	3.30	M	5.30	M	0.44	M	LM
LM Group	9		3.65		5.15		0.47		LM
CT	9	M	5.30	H	5.00	M	0.60	H	MH
OR	11	M	3.70	M	7.90	H	0.56	H	MH
SC	9	M	3.60	M	9.60	H	0.62	H	MH
MH Group	29		4.20		6.77		0.56		MH
MA	13	M	3.20	M	2.90	L	0.34	L	ML
FL	14	M	2.80	L	3.00	L	0.30	L	ML
VA	12	M	1.40	L	1.70	L	0.15	L	ML
ML Group	39		2.47		2.53		0.26		ML
CA	16	M	3.80	M	3.20	L	0.41	M	MM
NH	10	M	4.00	H	2.00	L	0.37	M	MM
AK	13	M	3.20	M	3.90	M	0.36	M	MM
MD	15	M	3.50	M	3.60	M	0.32	L	MM
MM Group	54		3.63		3.18		0.37		MM
CNMI	0	U	0.00	U	0.00	U		U	U
DE	0	U	0.00	U	0.00	U		U	U
RI	0	U	0.00	U	0.00	U		U	U
VI	0	U	0.00	U	0.00	U		U	U
Ungrouped	0		0.00		0.00		0.00		U
AL	0								NP
LA	0								NP
Non-participants	0								NP
US Totals and Means	304		3.41		5.47		0.45		29

Legend for table: H-High; M-Medium; L-Low; U-Unscored (no data); NP-Non-participating state in this issue area.

Also shown in Table 5.6 is the level of funding for waterfront revitalization, measured by CZM §306 and §306A, plus state CZM grants awarded to local government for waterfront studies, plans and projects. Funding is used as one indicator of program activity level, and is expressed as average dollar outlays *per waterfront district*. The range of funding level into which a state falls is displayed in the style of text used for the state name in the matrix.

The amount of variation of stage and scope scores within states, in some cases, is very wide and the average scores used to assign them to a group has little meaning. In other cases the number of missing data points also confounds easy group assignments. Tables 5.7 and 5.8 display the number and percent of *waterfront districts*, by state, falling into the top and bottom quartiles of stage and scope scores, respectively. This depiction of the outcome data permits us to see at a glance those states CMPs whose group assignments are ambiguous. Such states are marked with an asterisk in these tables.

The waterfront revitalization activities of the grouped states' CMPs are discussed briefly below. The ranges of "extent" and "maturity" scores for each group are shown in parentheses following the group sub-headings. (For more information on each state's waterfront revitalization policies, tools and outcomes, see Appendix A, which contains summaries of the more extensive "state profiles" developed through surveys and interviews with states' CMP officials during the course of this study.)

We remind the reader that the "scores" used to assign state CMPs to a group are calculated from data provided by state CMP officials who, for the most part, relied on individuals' memory rather than recorded observations to construct their responses to our survey. The groupings that result from these data are necessarily tentative and are presented to illustrate our approach to assessing the effectiveness of CZM.

5.3.2 High Extent/High Maturity (>16/≥0.5)

Two states form this group: Washington and Wisconsin. Each has extensive shorelines harboring communities that have been affected significantly by industrial change—manufacturing plant closures due to decline in the metals and heavy fabrication industries, and contraction of ports around the Great Lakes; and, decline and restructuring of resource-dependent industries—fishing and wood products harvesting and manufacturing—in the Pacific Northwest. Both states ranked waterfront revitalization a high priority at some period of their programs' history; but ironically, neither had explicit CMP policies addressing waterfront revitalization. Each program has provided substantial CZM funding and staff resources for financial and technical assistance to local governments, and each has produced guidance documents and conducted education & training programs for local governments. In a word, these programs have *marketed* waterfront revitalization in their states through the use of a broad suite of CZM tools and processes. This group of states accounts for 47 waterfront districts in generally advanced stages of revitalization

including: three districts in Seattle, two in Tacoma, and Olympia, Bremerton and Bellingham, Wash; and Kenosha, Kewaunee, Marinette, Racine and Superior, Wis.

TABLE 5.6: MATRIX OF STATE COASTAL MANAGEMENT PROGRAM GROUPS
BASED ON EXTENT & MATURITY OF WATERFRONT REVITALIZATION RESULTS

	High Maturity (Score ≥ 0.5)	Moderate Maturity (Score 0.40-0.49)	Low Maturity (Score < 0.40)
High Extent (Score > 16)	<i>Washington</i> <i>Wisconsin</i>	Michigan Maine <i>New York</i>	<u>Pennsylvania</u>
Moderate Extent (Score 9-16)	Connecticut Oregon (South Carolina)	(Alaska) California Maryland New Hampshire	Florida (Massachusetts) Virginia
Low Extent (Score < 9)	(Hawaii) (Puerto Rico) (New Jersey)	(American Samoa) (Mississippi)	(Guam) <i>North Carolina</i>

Legend for State Program CZM funding (§306, 306A & state grants) for waterfront plans and/or projects in support of revitalization:

Text Symbol	CZM Dollars Invested (per Waterfront District)
State name in plain text:	$< \$50,000$
<i>State name in italics:</i>	$\$50,000 - \$99,999$
<u>State name underlined:</u>	$\$100,000 - \$149,999$
State name in bold:	$> \$150,000$
(State) name in parentheses:	Unknown level of funding

5.3.3 Low Extent/Low Maturity (<9/<0.39)

At the opposite end of the spectrum are Guam and N. Carolina which have only a small number of waterfronts, most of which are in the early planning stages of revitalization (Wilmington, NC, being the notable exception). As an issue in the states' CMPs, waterfront revitalization has had a consistent medium priority in Guam, while in North Carolina it has moved from low priority since

TABLE 5.7: STAGE OF WATERFRONT DEVELOPMENT—NUMBER OF WATERFRONT DISTRICTS IN TOP AND BOTTOM QUARTILES, BY STATE

State	Stage Group	Top Quartile	% Total	Bottom Quartile	% Total	Total
AK	M	4	29%	8	57%	14
AS	H		0%		0%	1
CA	M	6	38%	1	6%	16
CT	H	8	89%	1	11%	9
FL	L	2	33%	2	33%	6
GUAM	L		0%	1	100%	1
HI	H	1	100%		0%	1
MA	M	1	8%	3	23%	13
MD	M	4	27%	4	27%	15
ME*	M	10	53%	1	5%	19
MI	H	13	65%	1	5%	20
MS	M		0%		0%	8
NC	L	1	13%	7	88%	8
NH	H		0%	1	10%	10
NJ	M		0%		0%	6
NY*	M	12	28%	11	26%	43
OR	M		0%		0%	11
PA	L	2	10%	15	71%	21
PR	H	1	33%		0%	3
SC	M	2	22%	3	33%	9
VA	L		0%	10	83%	12
WA	H	5	18%	7	25%	28
WI	H	4	21%		0%	19
TOTAL		76	26%	76	26%	293

program approval to high priority today. North Carolina has relied on financial and technical assistance, guidance documents and project review as its suite of tools used to address this issue.

These two states account for 9 waterfront districts: Agana, Guam's port and capital; Wilmington, Morehead City, Elizabeth City and others in N. Carolina. Wilmington is a success story where a \$180,000 CZM planning grant in 1984 has attracted \$104 million in public and private investment to the Cape Fear Riverfront.

5.3.4 High Extent/Moderate Maturity (>16/0.39-0.49)

Three geographically dissimilar states, New York, Michigan and Maine, comprise this group and account for 84 waterfront districts in settings that range from Manhattan's Hudson River shore through Rust Belt industrial cities on four of the five Great Lakes—Erie, Huron, Ontario and Michigan—to Maine's fishport and summer resort communities.

As an issue in their CMPs, both New York and Michigan have rated waterfront revitalization high since program approval in 1982, while Maine considered it low priority from 1978 until the present and now ranks it a medium/low issue. Despite differences in perception of the issue, New York and Maine each has explicit policies addressing waterfront revitalization. All three states have assisted large numbers of communities achieve wide ranges of revitalization outcomes in terms of stage of revitalization reached and scope of development achieved. These results have been gained primarily through the use of financial and technical assistance to, and partnerships with local

TABLE 5.8: SCOPE OF WATERFRONT DEVELOPMENT—NUMBER OF WATERFRONT DISTRICTS IN TOP AND BOTTOM QUARTILES, BY STATE

State	Scope Group	Top Quartile	% Total	Bottom Quartile	% Total	Total
AK*	M	3	21%	8	57%	14
AS	M		0%		0%	1
CA	L		0%	5	31%	16
CT*	M	3	33%	3	33%	9
FL*	L		0%	1	25%	4
GUAM	L		0%	1	100%	1
HI	H	1	100%		0%	1
MA	L	1	8%	4	31%	13
MD	M	2	13%	3	20%	15
ME	M	2	11%	4	21%	19
MI	M	8	40%	5	25%	20
MS	M	2	25%		0%	8
NC	M	1	13%		0%	8
NH	L		0%		0%	6
NJ	H	3	50%	1	17%	6
NY*	H	9	32%	8	29%	28
OR	H	4	36%	1	9%	11
PA	L	2	10%	10	48%	21
PR	H	1	33%		0%	3
SC	H	6	67%	2	22%	9
VA	L		0%	5	71%	7
WA	H	14	64%	3	14%	22
WI	M	3	16%	1	5%	19
TOTALS		65	25%	65	25%	261

governments. In New York, since 1991, monies from the state \$100M "Environmental Protection Fund"—derived from a tax on real estate transfers and recycling fees for batteries and

other hazardous materials—have been used for specific waterfront revitalization plans and projects. In Michigan, close to one million dollars will be available to local communities for FY 1996. Maine's Waterfront Action Grant Program has provided matching grants on a competitive basis to communities for acquisition and improvement of public access sites, and has been used to implement urban waterfront revitalization plans.

Among the 84 waterfront districts undergoing revitalization are: Detroit Riverfront, Mackinaw and Petoskey, Mich; Albany, Buffalo, Oswego, segments of the shores of the five New York City boroughs, and Oyster Bay, NY; Portland's downtown waterfront and South Portland, Augusta, Bath and Bangor, Maine.

5.3.5 High Extent/Low Maturity (>16/<0.39)

Pennsylvania, like New York, has coastal zone segments on both Lake Erie and an Atlantic estuary—the Delaware River, itself a heavily urbanized shoreline. CMP policies encourage port activities and "urban base enhancement," which might be interpreted to apply to waterfront revitalization. The state ranked waterfront revitalization a consistently "High" priority since program approval in 1980 and designated 7,444 acres of deteriorated waterfront, comprising 27 waterfront districts in Philadelphia and Erie, as GAPCs. Eleven of these districts have been the subjects of more than \$3 million of CZM grants and show some early signs of on-the-ground results. We received no evidence of program activity directed to the remaining 15 GAPCs.

If just the downtown Philadelphia and Erie waterfronts were considered, Pennsylvania would be one of the highest ranking CMPs in terms of its maturity. This score is diluted, however, by a large number of smaller waterfront districts along the Delaware River that have not realized the same advanced stage or scope of redevelopment as the downtown waterfronts. The state has used an extensive suite of tools to achieve its on the ground results; in addition to designating waterfronts as APCs, the state has used financial assistance, technical assistance, and environmental review most frequently.

5.3.6 Moderate Extent/High Maturity (9-16/≥0.5)

Three geographically divergent states—Connecticut, Oregon and South Carolina—comprise this group of CMPs which, collectively, have affected revitalization in 34 waterfront districts. Issue importance in Connecticut was high at time of program approval and has not diminished since then. In Oregon it was initially of medium importance but increased to medium/high in 1980 and, today, is high. South Carolina provided no information on issue importance. All three states had policies in place for public access, water-dependency, historic/cultural conservation and environmental restoration, but only one—Oregon—had explicit policies for waterfront revitalization.

Connecticut has relied primarily on technical assistance, review of local plans and projects, and environmental review to affect waterfront revitalization; financial assistance has been quite

limited, and designation of waterfront zones for urban development is done at the local level, not by the state CMP. Use of these tools appears to have been effective in achieving advanced stages of revitalization in eight of nine waterfront districts, seven of which are judged to be "completely revitalized"—Bridgeport, Milford, two districts in New Haven, New London, Norwalk, Norwich and Stamford.

Oregon, too, has used an extensive suite of tools to address revitalization of waterfronts in its estuaries and coastal bays, but financial and technical assistance have been the dominant pair. SAMPs provided a useful framework in two estuaries—Coos Bay and the Columbia River—for allocating some small proportion of estuarine shorelands to zones designated for urban redevelopment. Oregon has achieved mature results in five communities' waterfronts: Astoria, Coos Bay, Florence, Reedsport and Seaside. Oregon used \$306 monies to contract with Oregon State University for publication of a practical guidebook on waterfront revitalization for small cities. The planning principles and approaches presented in this guidebook were tested in pilot demonstration projects conducted in 1992-94 by the authors in two small northwest communities: Warrenton, Ore. and Raymond, Wash.

South Carolina also used SAMPs and a SAMP-like planning process—the Charleston Harbor Project—to identify areas of deterioration suitable for revitalization, but has relied almost exclusively on *project review* to influence waterfront revitalization. However, the degree of linkage between CMP policies and some very successful revitalization results—especially in Charleston—is weak; and, therefore, the importance of the role played by the CMP in this issue area is not as evident as it is, for example, in natural resource protection.

5.3.7 Moderate Extent/Moderate Maturity (9-16/0.39-0.49)

Alaska and California—two young west coast states with long and varied marine coastlines—are grouped with two of the oldest east coast states—Maryland and New Hampshire. The importance of waterfront revitalization as an issue in three of the states has never been high and has declined since 1980 in Maryland and California. In New Hampshire, from 1982 when the ocean and harbor segment of its program gained approval, until today, waterfront revitalization has remained a medium priority. Issue importance in Maryland was medium in 1978 at program approval, but low from 1980 to the present. Only in Alaska has the issue gained in importance from medium at time of program approval in 1979, to high now. All states but Alaska have explicit waterfront revitalization policies in their CMPs.

Alaska has used a locally-implemented designation process—Areas Meriting Special Attention (AMSAs)—to identify urban shorelines in need of development and redevelopment. The state provides financial assistance—in undocumented amounts—to local communities to develop plans and implement projects which the CMP reviews for consistency with both statewide standards and enforceable local policies. Thirteen waterfront districts and communities

spread throughout this enormous state, in the Anchorage area, the Aleutian Islands, on the Seward Peninsula and in Southeastern Alaska panhandle, have benefited from CMP assistance. Of these, Skagway, Ketchikan and Sitka have realized the most extensive waterfront improvements.

In California three state agencies have primary responsibility for implementing the state's CMP: The California Coastal Commission, the Bay Area Conservation and Development Commission (BCDC) and the California State Coastal Conservancy. Through the Conservancy, California has undertaken a highly focused and well-funded waterfront revitalization assistance program. This study has documented sixteen waterfront districts in communities throughout the state's 1,100 mile ocean shoreline, and around San Francisco Bay, that have been improved through the Conservancy's funding and planning assistance programs, and its help in coordinating site acquisition, enhancement and restoration. The real number is probably significantly more—perhaps 50—and, if documented, would push the state comfortably into the "high extent" category. Restoration and redevelopment of the Santa Monica Pier, Stearn's Wharf in Santa Barbara, and San Francisco's Pier 7 are examples of the Conservancy's attention to high quality design and the primacy of public access in its funded projects.

The California Coastal Commission and the Bay Area Conservation and Development Commission have important regulatory oversight of the development and amendment of local coastal plans, and over development permits issued for waterfront projects by local governments. These two agencies are the regulatory partners of the Conservancy, ensuring that coastal management goals are being met during revitalization of waterfronts in their respective coastal jurisdictions.

The current focus of attention in the Bay Area is on the potential for revitalization of ten recently-closed military bases. These closures have opened up miles of previously inaccessible waterfront, but poor infrastructure and the liability issues surrounding contaminated sites have chilled the interest of local government and other public agencies in these areas.

BCDC, working with the City of Richmond and the Richmond Redevelopment Agency, crafted a Special Area Plan to revitalize the waterfront. A "new" section of the city was discovered complete with a marina, residential and commercial development including the expansion of large R&D and multi-media corporations. A Special Area Plan being undertaken with assistance from and the involvement of BCDC will revisit older policies affecting revitalization of the Port of San Francisco's downtown waterfront finger piers. Designed to prevent further Bay filling, these policies have had a chilling effect on redevelopment that could increase public access to and enjoyment of the Bay⁴.

⁴Information about these two waterfronts came to us too late to be included in the process and outcomes tables in this report.

Like other New England states, New Hampshire has strong water-dependency policies favoring ports, the fishing industry and public access. The state CMP designated the Port of Portsmouth as a GAPC to protect its port functions and accommodate their expansion, and provided financial and technical assistance to effect revitalization in Portsmouth and eight other urban waterfront communities. Plans and projects—primarily parks, trails, bulkheads and other public access improvements—have been undertaken in Exeter, Dover, Newcastle and Durham.

Maryland's Baltimore Inner Harbor is perhaps the best-known and certainly among the nation's most successful large city waterfront revitalization projects, but much of the planning for, and implementation of the Inner Harbor project occurred prior to 1980. Maryland CMP's involvement was focused on the public promenade, ensuring continuous public access opportunities.

The CMP has entered into partnerships with and provided financial assistance to 14 other communities along both shores of Chesapeake Bay. Among these, Betterton, Princess Anne and Rock Hall have reached an advanced stage of revitalization by incorporating a small number of improvements, primarily parks and public access. Annapolis has revitalized its harbor, focusing on its importance as a marine recreational center for Chesapeake Bay.

5.3.8 Moderate Extent/Low Maturity (9-16/<0.39)

Two of the three states in this grouping—Florida, Massachusetts—have in place explicit policies addressing waterfront revitalization; the third—Virginia—does not. Florida has a young and emerging program in waterfront revitalization. The issue was assigned a "medium" priority and gained little attention until recently, when it assumed a "high" priority. Significant revitalization outcomes have been realized in the Tampa, Gulfport and Pensacola waterfronts; others are still at the early planning stages.

Recently, the state's CMP agency has undertaken a formal needs assessment to guide a future technical assistance program for local coastal communities. The *Waterfronts Florida Program* will designate selected cities as *Waterfronts Florida Communities*, making them eligible for technical assistance and state funding.

In Massachusetts, where the issue has had consistently high priority since program approval in 1978, the CMP has focused revitalization activity primarily in "Developed Port Areas," protecting water dependent industries, revitalizing ports, and promoting public coastal access, where appropriate. Commercial development is generally permitted only outside DPAs, or under very restricted circumstances on lands within them. The state has used designation (either Developed Port Areas or a Special Assistance Development Areas) to steer technical and financial assistance—in undocumented amounts—to ports and municipalities to undertake Port Master Plans or Harbor Management Plans, including South Boston, Quincy, New Bedford, Gloucester, Beverly, Salem and Newburyport. Revitalization in much of Boston's waterfront and

adjacent downtown predates federal approval of the Massachusetts' CMP in 1978. James Rouse's "festival marketplace" theme was already imprinted on Faneuil Hall and the Quincy Market, redevelopment of several stone wharves on the downtown waterfront for housing was complete, and Waterfront Park built.

Virginia has the nation's youngest coastal management program, approved in 1986. Except for a few years in the early 90s, when the priority for waterfront revitalization was considered "medium" in the state, Virginia's CMP had given a low priority to the issue. Despite this low issue priority and the absence of an explicit policy addressing revitalization, the CMP agency has invested considerable amounts of §306 and 306A monies in local waterfront communities. The state has created training opportunities for its "coastal partners" in local government, and provided significant financial assistance to twelve waterfront communities to undertake waterfront revitalization plans and projects. The resulting improvements enhance public access—fishing piers, boardwalks, and trails—in communities which include Newport News, Cape Charles, Portsmouth and Richmond.

5.3.9 Low Extent/High Maturity (<9/≥0.5)

Honolulu, Hawaii, and San Juan, Puerto Rico, are, respectively, capitals of a tropical island state and commonwealth, and each caters to significant international tourism; both have a rich colonial history predating their current US affiliation; each city accommodates its island's principal port; and both CMPs were approved in 1978. In both Hawaii and Puerto Rico waterfront revitalization had generally low priority at time of program approval and in 1980 when the CZMA amendments became law. They remain low to the present day. Neither CMP has provided any financial assistance to local government to undertake waterfront revitalization plans or projects. Yet in Honolulu and San Juan, significant revitalization has been achieved in the downtown waterfronts. In both programs the principal responsibility for urban redevelopment lies in networked agencies—Hawaii's Community Development Authority and Puerto Rico's Planning Board—which, in turn, are required to incorporate CZM goals in their planning and land use decisions.

In 1980, New Jersey's CMP upgraded the priority assigned to waterfront revitalization in 1978 at time of program approval from "medium" to "high," where it remains to the present. The program has explicit policy language on this issue and has utilized an extensive suite of tools to address revitalization, the most important of which are designation, project review, partnering and technical assistance. Revitalization has been undertaken in seven waterfront communities, and advanced, mature stages of redevelopment have been attained in Atlantic City, Hoboken and Jersey City. Camden, and Edgewater have undertaken significant public access projects.

5.3.10 Low Extent/Moderate Maturity (<9/0.39-0.49)

American Samoa and Mississippi have undertaken revitalization in small numbers of waterfront districts (one and eight respectively), but have achieved moderate stages and scope of developments. Mississippi has an explicit policy to revitalize waterfronts; Samoa does not. Mississippi designated and mapped eight waterfronts as Special Management Areas in its CMP and has achieved results in all of them using a suite of tools that includes, in addition to designation, financial and technical assistance to, and partnering with, local communities.

American Samoa now places a "high" priority on waterfront revitalization, up from "medium" at time of program approval in 1980. Revitalization activity is limited to Pago Pago harbor, which was designated as a Special Management Area to protect port and other coastal dependent activity, and water quality in the harbor. Improvements include a landside plaza with restaurant, guest boating facilities and marine industry.

5.3.11 Ungrouped States

Four states (Commonwealth of the Northern Marianas, Delaware, Rhode Island, Virgin Islands) provided no data and could not be scored on either outcome measure; their level of program activity in waterfront revitalization is unknown.

5.3.12 Non-Participating States

Two remaining states—Alabama and Louisiana—had no involvement in waterfront revitalization because the subject was not a significant issue for either state; their priorities lay elsewhere.

5.4 An "Ideal" Waterfront Revitalization Program

In an ideal world, states considering undertaking waterfront revitalization assistance programs would have in place certain preconditions necessary for a successful program outcome. Based on a review of the literature, information gained from this study about the strengths and weaknesses of states' programs, and the investigators' professional experience, it is possible to describe some of the attributes of an "ideal" waterfront revitalization component of a CZM program. Following each attribute discussed below is a case example drawn from the study illustrating a program, policy, tool or process used by a state in a particularly effective way to achieve on-the-ground outcomes.

5.4.1 Authority

The state legislature would have given the lead CZM agency (or a networked community development or similar agency) the statutory authority (or directive) to provide financial, technical and other assistance to local communities specifically for the purpose of revitalizing their deteriorated urban ports and waterfronts. The statute (or, failing that, an executive order from the Governor's Office) would describe, in general terms, the outcomes sought and the roles to be played by state and local governments (and, perhaps, public port authorities) acting in partnership, to achieve them. A corollary responsibility for oversight by the state CZM agency would be specified to ensure statutory goals are being achieved by local governments that receive waterfront revitalization funds from (or through) the state CZM agency.

Case Example: California

California's Coastal Management Program has a specific policy and program tailored to urban waterfront restoration. The California State Coastal Conservancy's (SCC) Urban Waterfront Program was initiated under the Urban Waterfronts Restoration Act of 1981 (California Public Resources Code Section 31300 *et seq.*), and is incorporated into the SCC's enabling act in Ch. 7. The Act directs the Conservancy "to *promote excellence of design and...stimulate projects which exhibit innovation in sensitively integrating man-made features into the natural coastal environment.*" Through the Urban Waterfronts Program, the Conservancy assists in the planning, design and implementation of waterfront, and coastal development and conservation projects which are consistent with uses designated as high priority under the California Coastal Act of 1976 as amended. Additionally, the Conservancy has expended funds allocated to it by several bond acts voted by the electorate in 1976, 1980, 1984 and 1988.

The Conservancy is authorized to assist in the development of urban waterfront projects within the Coastal Zone of the state as defined by California Public Resources Code Section 30103, and within the permit jurisdiction and affected environs of the San Francisco Bay Conservation and Development Commission as defined by CA Government Code Section 66610.

An effective urban waterfront revitalization policy must produce results (i.e. revitalization plans and projects). The SCC's Urban Waterfront Program has been extremely active over the last 15 years, highlighted by impressive revitalization plans and projects. Backed by a clearly defined and aggressive policy to promote and sponsor revitalization, the Coastal Conservancy has gone forth with generous financial contributions and specialized technical assistance from San Diego in the south to Eureka in Humboldt County to the north. Over 50 revitalization projects and plans have been undertaken to date by the Coastal Conservancy, of which, only 16 have been documented in this study.

5.4.2 Policies

The state's CZM program would contain strong policy language to ensure that planning and projects undertaken in urban waterfronts embodied the core objectives of CZM for public access, protection of coastal dependent industry and ports, conservation restoration and interpretation of historic and culturally-significant structures and sites, restoration of degraded coastal environments, and any other goal of particular local significance.

Case example: New York

New York relies on a well-funded voluntary partnership with local municipalities. Under provisions of the Waterfront Revitalization of Coastal Areas and Inland Waterways Act (WRCAIWA) Executive Law, Article 42, and its implementing regulations (6 NYCRR 601) each coastal community has the option to implement a Local Waterfront Revitalization Program (LWRP) to manage coastal development, whether the concern is protecting critical resources or revitalizing deteriorated waterfronts. Critical to the LWRP is the establishment of local land use regulations and other local laws to enforce State coastal policies.

There are 44 policies established in the WRCAIWA. In general, coastal policies promote the beneficial use of coastal resources by encouraging the siting of water dependent uses, expansion of ports and small harbors, *revitalization of waterfronts*, and expansion of access and recreation opportunities. Specifically, five policies guide municipalities in addressing waterfront revitalization as defined in this study:—

Policy 2: Facilitate the siting of water-dependent uses and facilities on or adjacent to coastal waters.

Policy 4: Strengthen the economic base of smaller harbor areas by encouraging the development and enhancement of those activities which have provided such areas with a unique identity

Policy 5: Encourage the location of development in areas where public services and facilities essential to such development are adequate.

Policy 6: Expedite existing permit procedures in order to facilitate the siting of development activities at suitable locations.

5.4.3 Inventory and Designation

An inventory of urban waterfronts in the state's coastal zone, undertaken in partnership with local governments, would have identified the scale and scope of deterioration, dilapidation and

abandonment affecting waterfront districts. This knowledge would permit a strategic deployment of state program resources to a prioritized list of designated waterfront communities and districts.

Part of the problem in documenting the effectiveness of CZM in revitalizing urban waterfronts has been determining the number of potential waterfronts needing revitalization. Very few states designated their urban waterfronts needing revitalization, Mississippi and Pennsylvania are two exceptions. In addition to designating a distinct number of areas needing revitalization, both states' CMPs have followed through with planning and small construction projects.

Case Example: Mississippi

The Mississippi Coastal Management Program designated eight urban waterfronts in 1980 as Special Management Areas (SMA's), because they represent unique economic and social benefits to the coast at locations that provide important opportunities for public access to the waterfront. As urban waterfronts near high density population centers have lapsed into decline, they offer excellent access and economic opportunities to large numbers of people. These waterfronts include historical points of interest and provide unique visual opportunities to the public. In addition, SMA's usually address port facilities. The identified areas are listed below and appear on the map shown in Figure 5.1.

- Waveland (at Coleman Avenue.)
- Bay St. Louis (Downtown commercial district)
- Pass Christian (harbor and scenic drive-city hall to Hancock Bank)
- Long Beach (Beach commercial area at Jeff Davis and the beach to encompass the harbor and adjacent beachfront land)
- Gulfport Harbor Square
- Biloxi (Downtown redevelopment areas including commercial and recreational small craft harbors)
- Pascagoula (Along Front Street)
- Moss Point (Downtown along old Hwy. 63 from O'Leary Lake to the Moss Pt. city limits)

In all of the designated waterfront areas for redevelopment the Mississippi CMP has supported revitalization plans and projects. In each waterfront financial and technical assistance was provided.

Case Example: Pennsylvania

During the state's Coastal Management Program's inception in 1980, Pennsylvania designated 26 waterfront areas, comprising 7,500 acres of urban waterfront land, as Geographic Areas of Particular Concern (GAPCs) and candidates for revitalization. Over the last 15 years the CMP has been actively involved in over half of the originally designated areas by providing funding and technical assistance for planning and small construction projects.

5.4.4 Financial Assistance: Funding, Performance Standards and Oversight

A competitive urban waterfront grant program with detailed guidelines and criteria for planning and construction grants would be used to direct state and federal CZM funding to the most deserving communities and ensure core CZM objectives were being met. (This approach would enable CZM program oversight of waterfront revitalization in states where neither local coastal programs, nor state oversight of general comprehensive local land use plans, are in place.)

Case Example: Michigan

Under the §306 and §306A federal funding programs a majority of the state coastal management programs have awarded grants to local communities for revitalization planning and small construction. Preceding the 1980 CZMA amendments, Michigan's CMP developed a competitive grants program for local communities that paved the way for future funding practices in Coastal Zone Management nationally. Michigan's CMP continued to be leader in the early 1980's in the provision of small grants to local governments for low-cost construction of public access and other shoreline improvements.

Roughly a third of Michigan's federal grant is passed on to local communities in the form of 306 and 306A grants. For FY 1996 close to one million dollars was available to local communities. These local communities and private interests have, in turn, matched these funds. Today, Michigan's CMP strives to improve its grant program, and a model grant application and a new application form to assist applicants has been developed.

Augmenting CZM funding, other sources include: State General Fund, Recreational Improvement Fund, Michigan Natural Resources Trust Fund, Protecting Michigan's Future Bond Fund, and federal Intermodal Surface Transportation Efficiency Act (ISTEA) funds .

The use of CZM funds is strongly linked to economically successful waterfront revitalization in Michigan. For example, the revitalization of Detroit's deteriorated industrialized waterfront was initiated by a CZM-funded \$82,000 grant, "Linked Riverfront Parks Master Plan". The project was designed to create several parks along the Detroit River that are linked by a bike path system. This linked park system has stimulated millions of dollars in private investment and has created an estimated 1,200 new jobs. The investment resulted in \$37 million of additional federal, state and local government funds. In turn, those dollars have stimulated \$210 million of private investment in housing, office and commercial development.

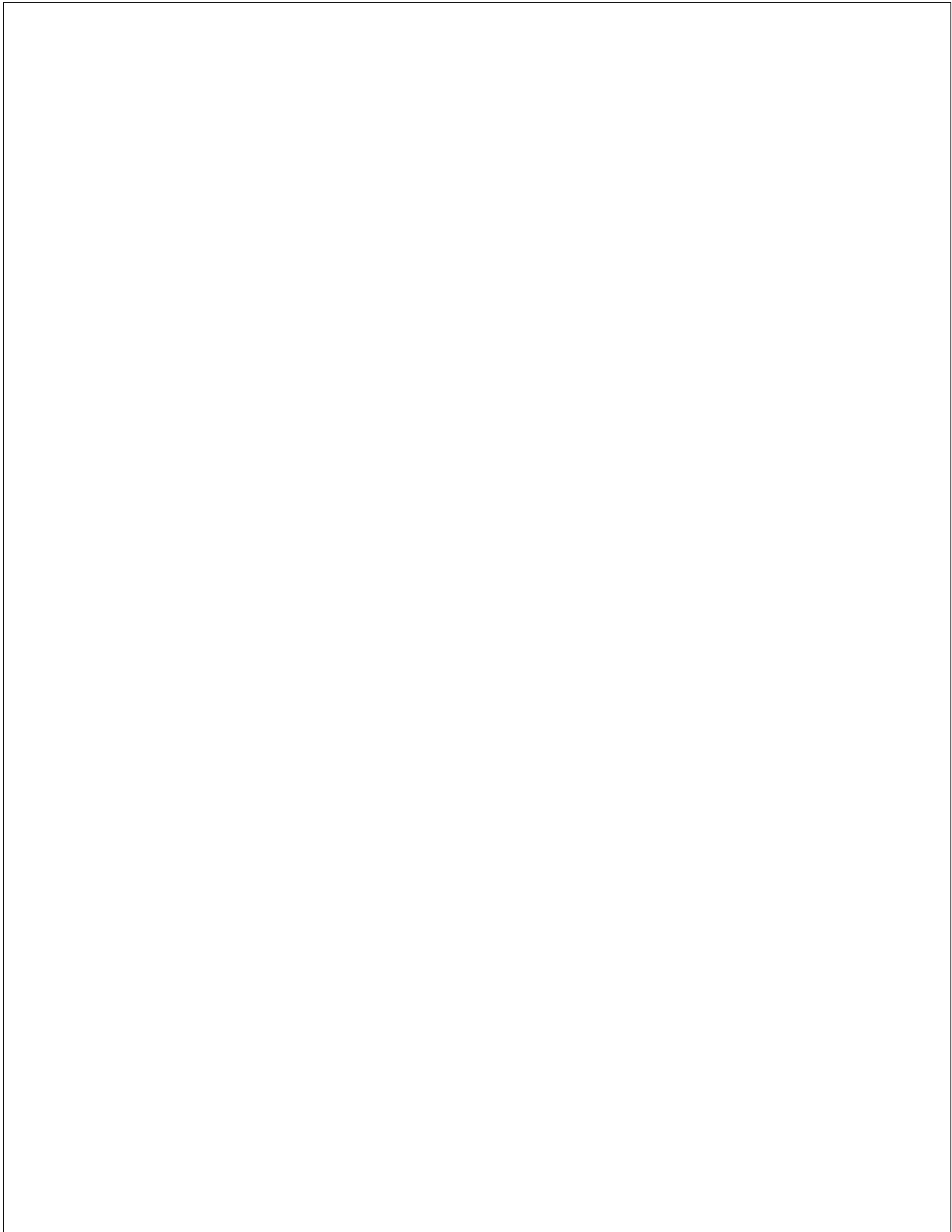


FIGURE 5.1: MISSISSIPPI'S WATERFRONTS DESIGNATED FOR REVITALIZATION

5.4.5 Technical Assistance

The state CZM program would have trained staff, knowledgeable about urban waterfront planning and development, to provide assistance to local governments during all phases of the waterfront revitalization process. Where in-house expertise didn't exist, staff would act as a referral source, fielding queries to experts in a community development, submerged land management, fisheries, or other agencies in state or federal government.

Case Example: California Coastal Conservancy

The California Coastal Conservancy has provided staff and technical assistance in all phases of revitalization project planning and development. This includes technical assistance for project feasibility and site analysis, plan preparation and planning approvals, assistance in designing financing strategies, obtaining project financing and property acquisition and the construction of site improvements. The Conservancy has devoted much of its staff and consultant resources to pre-project planning, design and analysis in order to maximize the chances of successful implementation (Beyeler 1994).

5.4.6 Guidance Documents

Guidance documents for small and large cities undertaking waterfront plans and projects would be produced, or assembled from other sources. These would provide general information about waterfront problems, issues, planning and development, and specific guidance to achieve compliance with the state's waterfront revitalization program guidelines. A "quick reference library" of materials produced by other states' CZM programs, universities, and professional planning or urban development organizations promoting waterfront redevelopment, would be made available to local governments and ports.

Case Example: Oregon

Waterfront Revitalization for Small Cities, (Good and Goodwin, 1990) a planning guide for non-metropolitan coastal cities, was written and published with partial funding from DLCD through a CZM 306 grant. An *Oregon Supplement* (Stambaugh and Good, 1990) which augmented the general information in the guidebook with Oregon-specific regulatory and financial assistance programs, was also published using this grant.

So far, 1,500 copies of *Waterfront Revitalization for Small Cities* have been sold nationwide and internationally—evidence that Oregon CMP's investment in this guidebook has benefited coastal management throughout the country and abroad.

5.4.7 Education & Training

State staff would undertake statewide or regional training programs to promote the urban waterfront grant program and familiarize local partners with the information and assistance available to them. These regional programs would be complemented by community-specific

workshops, tailored to address local problems or opportunities that arose during pre-grant application, planning or project implementation stages of revitalization.

As experience is gained and a significant number of waterfront communities begin to achieve results, the state CZM program, perhaps in collaboration with universities and neighboring states' CZM agencies, would host a statewide conference or symposium. Here, local governments would share their experiences, showcase their successes and dissect their failures. Any need for mid-course corrections to the content or administration of the state's urban waterfront grant program would become apparent at this stage and might lead to legislative or regulatory changes being proposed.

Case Examples: Washington

In February, 1980, Washington's Department of Ecology, the state's CZM lead agency, sponsored a three-day Urban Waterfront Workshop in Bellingham. The workshop was set up to help local governments learn more about what other cities and counties are doing to revitalize their waterfronts. (*Source: Shoreline/Coastal Zone Management , March, 1980*)

Later that year WDOE in collaboration with the Washington Sea Grant Program and the College of Architecture and Urban Planning, University of Washington, funded a Shoreline Design Awards Program to honor outstanding shoreline development and restoration projects. An exhibit of the eight winning projects—six of which were urban development and public access projects in revitalizing waterfront districts—toured the state. (*Source: Shoreline/Coastal Zone Management , November, 1980*) See Figure 5.2.

In 1981 WDOE co-sponsored a four-day Waterfront Revival Conference in Bellingham which addressed maritime heritage issues and how public waterfronts can be planned, funded and built. (*Source: Shoreline/Coastal Zone Management , August, 1981*)

WDOE, again in collaboration with the Washington Sea Grant Program, cosponsored the Seattle Waterfront Symposium in 1982. This four-day educational event utilized an international panel of waterfront development experts to help the City of Seattle and its waterfront stakeholders explore plans, projects and ideas for Seattle's central waterfront. Many of the panel's recommendations were incorporated into the City of Seattle's Harborfront Plan and the Port of Seattle's redevelopment strategies for its downtown piers and land holdings in the adjacent uplands. (*Source: Seattle Waterfront Symposium Notebook, 1982.*)

After contracting with an urban design consultant to create a guidance document on urban waterfront development for local governments (MAKERS, CH2M-Hill, Hall and Associates, *Urban Waterfront Policy Analysis*, Washington State Department of Ecology, 1986.) WDOE conducted a workshop at Lake Chelan in 1986 to transfer the information to local shoreline/coastal planners.

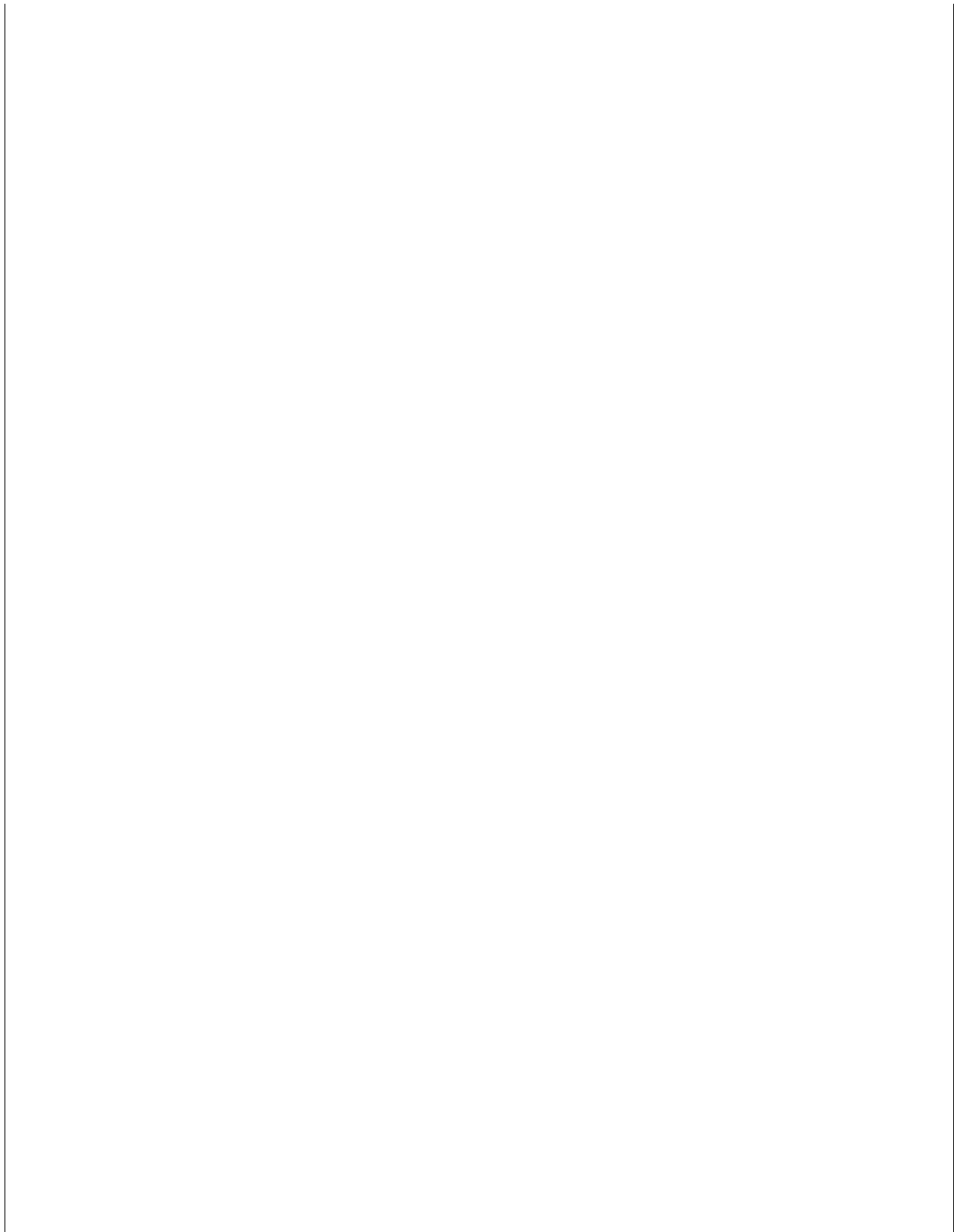


FIGURE 5.2: WASHINGTON STATE'S SHORELINE DESIGN AWARDS PROGRAM

Because of the number of smaller communities with deteriorated waterfronts in Washington's coastal zone, the WDOE in April, 1987, teamed with the Washington and Oregon Sea Grant College Programs, and the Washington State Department of Community Development to sponsor a two-day, bi-state conference in Ocean Shores, Washington, titled, *Waterfront Revitalization for Smaller Communities*. One-hundred-fifty people from cities, ports and chambers of commerce in Washington and Oregon were exposed to case studies drawn from five small "peer" communities in Washington and British Columbia. Workshops were conducted on: coastal tourism; recreational boating and marinas; and, interpreting marine environments. Experts presented lectures on revitalization topics that included: using consultants; economics of waterfront development; public and private financing; and, managing waterfront parks and public facilities. A 200-page *Proceedings* of the workshop was produced in paperback book form by Washington Sea Grant and distributed both nationally and internationally. WDOE provided a grant to the University of Washington to plan and conduct the conference, subsidized some small town staff's participation through "scholarships," and defrayed part of the publication and distribution costs of the conference *Proceedings*.

5.4.7 Partnering

State CMPs and local towns and cities will act in partnership to design waterfront revitalization plans and projects that meet state and, by extension, national objectives for CZM. But, as we've pointed out earlier, developing and implementing waterfront revitalization plans require the involvement of many actors besides state CMPs and local governments. Other state and federal agencies must concur on issuance of permits in waterways and wetland areas, and should be brought into the planning process at early stages to avoid later derailment of plans. Where contamination of soils from abandoned manufacturing plants, bulk storage facilities, or old port terminals is likely, EPA, NOAA and state environmental protection and submerged lands agencies will need to participate in developing plans for site remediation, damage assessment and other thorny issues before any development will be permitted. A state CMP can be the convenor of interagency panels and workshops to assist local governments address such issues and begin to scope plans to address them.

Case Example: Connecticut

The Bridgeport "Charrette" may best exemplify the partnerships a coastal program can help forge to benefit local communities undertaking waterfront revitalization. The "Charrette"—an intensive, community-based planning and design process—was conducted over a July weekend in 1996, to address redevelopment proposals for the reuse of a 12+ acre contaminated "brownfield" site on the Bridgeport waterfront. The site is owned by the United Illumination Co. and is occupied by their now-closed power plant.

Organized under the auspices of Yale University's School of Architecture, this professionally-facilitated two-day event involved design professionals, local community groups and members of a local Native American Tribe, as well as federal, state, and local government officials. Connecticut CMP's staff participating in the "charrette" roved through the breakout groups advocating the importance of incorporating CMP goals, particularly public access and water-dependency, into the design plans for the site.

As a result of the "charrette," these goals of the CMP are articulated in United Illumination's "Request for Qualifications" which, at time of press, was being advertised to the development community—the first step in selecting a qualified developer for the project. Connecticut CMP staff view the Bridgeport "Charrette" as an example of proactive, as opposed to reactive, involvement of a CMP in helping cities achieve appropriate waterfront revitalization.

5.4.8 Special Area Management Planning (SAMP's)

Among the suite of tools available to CMPs undertaking waterfront revitalization, SAMPs can fill a unique need: Identifying urban shorelands that have become surplus to the needs of ports and other marine industry. SAMPs will be used to tackle estuary-wide, bay-wide, or harbor-wide comprehensive planning and coastal resource management issues that span more than one political jurisdiction, involve multiple levels of government and require regional watershed scale approaches to be successful. CMPs can use the SAMP process to uncover information about the likely long term needs of different coastal industries for waterfront sites—ports and marine transportation, water-dependent manufacturing, marine recreation—and balance these legitimate economic needs against the natural resource systems their facilities are likely to impact. This is the ideal planning context within which waterfront revitalization can proceed: Decisions concerning largely irreversible changes in urban shoreline land use can be made with far more confidence when the regional needs of important marine sectors are understood.

Case Study: Wisconsin

Special Area Management Planning has not been extensively used by the nation's coastal management programs to address revitalization of urban waterfronts. Where the SAMP process has addressed revitalization efforts it has been viewed as highly important and complementary to the other tools CMP's utilize. This study identified a SAMP process currently underway in Wisconsin for the City of Superior that addressed future development and industrialization of Superior's deteriorated commercial waterfront. Unfortunately, we were unable to obtain a copy of the SAMP because it was still being reviewed by the City of Superior. To the best of our knowledge this particular SAMP represents the most effective use of the SAMP process toward urban waterfront revitalization.

Case Example: San Francisco Bay Area Conservation and Development Commission

The Special Area Plan is a mechanism embodied in California's McAteer-Petris Act that offers voluntary partnerships with local governments to develop a single local plan incorporating the local government's plan and revising the SF Bay Plan. Consequently, one set of refined rules is on the books, providing a means to achieve state and local consistency. The result is a quicker and smoother regulatory process that address potential conflicts proactively. Special Area Plans, while not specific to urban waterfront revitalization, address a wide range of issues that might include planning for urban waterfront revitalization.

5.4.9 Local Coastal Program Review

State review of Local Coastal Programs (LCPs) is an important tool to affect waterfront revitalization not only in states where LCPs are mandated, but also where voluntary local coastal planning, once undertaken, is subject to state review. Compliance with other state CMP goals—enhancing public access, protecting water dependent industry, etc.—can be assured during review of plan amendments designed to implement waterfront redevelopment objectives.

Case Example: Washington

In 1976, the year Washington's CMP received federal approval, a Seattle commercial real estate developer was proposing a very large, overwater, mixed-use development that would replace two deteriorated wooden finger piers on Elliott Bay along downtown Seattle's Central Waterfront. With the exception of a small marina, the project comprised entirely non-water dependent uses—a hotel, an office tower and retail activity. This proposal surfaced as the City of Seattle was drafting its first Shoreline Master Program (SMP) as required by the state's 1971 Shoreline Management Act (SMA).

To accommodate large mixed-use projects on the Central Waterfront the City included a "planned unit development" provision in the SMP it submitted for the approval of the Washington Department of Ecology (WDOE), the state's CZM lead agency. The WDOE approved Seattle's SMP but insisted upon the planned unit development provision being removed and replaced with more specific permitted land and water uses and development standards for the area.

The proposed development, which would have run afoul of state submerged lands leasing terms (specifically, uses of "Harbor Areas") as well as the water-dependency policies of the SMA, was shelved and the site subsequently developed as an extension of the Washington State Ferries Colman Dock terminal, a water-dependent use.

WDOE's tactful but firm handling of the City's attempt to accommodate large mixed-use developments in its SMP set the stage for more appropriately-scaled adaptive reuse of Elliott Bay's old finger piers, the preservation of water-dependent uses they support, and the protection of the views of Seattle's Harbor from downtown.

5.4.10 Project review

An ideal CMP would recognize that it is at the individual project level that many of the public benefits of revitalized waterfront districts are realized. Preservation and enhancement of public access to the water's edge, adaptive reuse of historic structures to conserve the past, or maintenance of water views from upland streets are achieved or lost through incremental project-by-project decisions.

While not all CMPs will have direct permitting or permit review authority, those that do have significant leverage to influence successful implementation of a waterfront revitalization plan. And for those CMPs that do not have such authority, federal and state consistency procedures offer alternative opportunities to ensure state program policies are addressed in projects requiring action by other state or federal agencies.

Case Example: New York

Any waterfront development project requiring a state or federal permit or license is reviewed by NYCMP staff for consistency with the policies of the state's coastal program which includes all approved Local Waterfront Revitalization Programs (LWRPs). This review is seen as a highly important tool to affect changes in inappropriate development projects. For example, when the City of New York proposed to ease prison crowding by mooring prison barges in the East River, the NYCMP raised objections, based on the approved LWRP, during state consistency review of the US Army Corps of Engineers permit. An interim permit to moor the barges *temporarily* was approved; and, subsequently, when the crowding crisis had passed, the barges were removed. "The LWRP provides a vehicle for negotiations over controversial projects." (Wibur Woods, Director, Waterfront & Open Space Planning, NYC Dept. of City Planning, telephone interview.)

5.4.11 Environmental Review

Using NEPA or the state's "little NEPA," the CMP would review governmental actions affecting the environment, and scrutinize waterfront plans and projects to ensure they avoid the many environmental pitfalls of urban shoreline development (re-suspending contaminants during dredging polluted sediments, interrupting fish passage by bulkhead construction, or destroying prime fish habitat through dredge and fill operations, etc.).

Case Example: California Coastal Commission

The California Coastal Commission reviews permits issued by local governments for consistency with the approved local coastal program, the California Coastal Act, and the California Environmental Quality Act—a state "little NEPA." The Coastal Commission uses informal pre-permit discussions as well as formal permit reviews to affect the quality of development and redevelopment projects.

In 1994, the City of Eureka in Humboldt County, California, proposed to construct a berthing facility for visiting vessels—including tall ships—as well as local recreational smallcraft. The

site is adjacent to the community's Adorni Center, a recreation facility and outdoor amphitheater located in an area undergoing revitalization at the northern end of the downtown Eureka waterfront. During pre-permit discussions with the North Coast office of the California Coastal Commission, the issue of the project's impact on a narrow band of eelgrass arose. The emerging design accommodated the staff's concerns about the dock "shading out" this important marine habitat, which, they believed, was a spawning ground for herring—an important local fishery.

When the permit was issued for the project the Commission imposed two conditions: first, to require monitoring the eelgrass bed for three years to detect any project-induced changes; and, second, to define a construction window to avoid disrupting herring spawning. (The latter condition was subsequently removed when it was shown that herring did not spawn in that particular area.)

When complete, this public berthing facility will provide important public access, in an environmentally benign fashion, to and from the waters of Humboldt Bay near Eureka's revitalizing Old Town district.

5.4.12 Sponsoring Waterfront Festivals and Maritime Events

Supporting and hosting of maritime celebrations and events focused on the urban waterfront is an excellent way to bring the public “back” to the waterfront; COASTWEEKS, a month-long national celebration held during September and early October each year, is a perfect opportunity for CMP's to sponsor music festivals, boat building shows and exhibits, arts and crafts fairs, tall ship tours, harbor cruises, marina cleanups etc. The possibilities are endless.

Case Examples: South Carolina, California

South Carolina and California CMP's lead the nation in hosting coastweeks events centered around revitalized waterfronts. In Charleston, South Carolina, harbor cruises, museum tours and bay festivals draw the public back to the waterfront to realize and appreciate the wonderful amenities their revitalized waterfronts offer.

The California Coastal Commission is the state sponsor of Coastweeks, promoting a wide array of waterfront festivals and activities. "Harbor Days" in Morro Bay is a weekend-long Coastweeks celebration hosted along Morro Bay's working waterfront. Every year an art festival, waterfront boat tours and a salmon bake draw thousands of people to this town of 9,500 residents. The Morro Bay community implemented a California Coastal Conservancy-supported waterfront plan to improve commercial fishing facilities and public access to the waterfront.

5.4.12 Monitoring and Evaluation

Finally, the state CZM program, with assistance and financial support from NOAA/OCRM would have created (or adopted) a computer-based information system to monitor program performance. The system would track *program inputs* (expenditures, staff effort), *program outputs* (grants awarded, education and training events undertaken, guidance documents and

publications produced, etc.), and *program results* (waterfront plans produced, waterfront projects completed, waterfront events that took place). Periodically, state program staff or consultants would undertake detailed case studies of representative waterfront districts to determine *program impacts* (community economic benefits realized, improvements to visual appearance of waterfronts achieved, new public access gained and other CZM objectives met).

A handful of state programs—notably Maine and Connecticut, and to a lesser degree Pennsylvania and Washington—were able to provide detailed computer records which documented grant awards and the scope of the revitalization projects undertaken. These CMP record-keeping systems could be used as a template for tracking CMP involvement in waterfront revitalization.

Case Example: Connecticut

Viewing CZM retrospectively, Connecticut undertook a comprehensive ten-year assessment of its CMP's accomplishments and reported the results in an elegant 1988 publication, *Coastal Management in Connecticut Beyond the First Decade*. The results of many of Connecticut's waterfront revitalization efforts funded earlier were thoroughly documented. This case study-based documentation of program results is a model other coastal states might emulate. The author concluded:

"Coastal management has played a key role in the revitalization of urban waterfronts and ports across the state, and the restorations have translated into jobs for thousands of residents and millions of dollars in new capital investment. The ratio of coastal management dollars invested on the coast to that invested by public and private sources for continuing or expanding those same projects is often greater than 1:1000."

5.5 Attribution of On-the-ground Outcomes to States' CMPs

5.5.1 Approach

Among the assumptions we made at the beginning of this study was that waterfront revitalization was the business of cities. The role of states' CMPs was to ignite cities' interest in undertaking revitalization and assist them accomplish that goal in ways that achieved other CZM objectives. For states having, and fully utilizing, an *ideal* waterfront revitalization program, their contribution to the collective on-the-ground achievements of the cities whose waterfronts they helped revitalize would be indisputable. To the degree that states' lack specific building blocks of that ideal program, or fail to utilize those they have, their capacity to effect revitalization in their coastal cities would be diminished, and so would be their share of the credit for on-the-ground outcomes achieved.

With this in mind, we asked four questions:

1. What tools are available in each state's CMP?
2. How does this suite of tools compare with those of our *ideal* waterfront revitalization program? (Tools Potential)
3. What tools were actually utilized, on the ground, in waterfront communities? (Tools Score)
4. What proportion of the state's CMP capacity to effect waterfront revitalization was put to use? (Tools Utilization)

Tools potential and *tools score* were calculated by summing the weighted tools—available to the CMP and utilized on the ground, respectively—using the weightings described in 3.4.2, above, and dividing by the maximum possible weighted tools total. *Tools utilization* is the ratio of *tools score* to *tools potential*—an indicator of how much of its tools capacity the CMP has used in specific waterfronts. Table 5.9 shows the results of these calculations. The entries in the tools columns are the number of waterfront districts, by state, in which those tools were put to use.

States' *tools potential* and *tools scores* have no absolute meaning; a state CMP with a *tools score* of 0.5 cannot claim 50% of the credit for revitalization outcomes in its waterfront districts! What the score does mean is that the state, in assisting local communities undertake waterfront revitalization, has utilized half of the theoretical maximum capacity of our *ideal* program. Similarly, a *tools potential* of 0.95 simply means that the state has at its disposal a suite of CZM tools whose capacity is only 5% below the theoretical maximum of the ideal program. A *tools utilization* of 60% means that the state has utilized 60% of the tools *available in that state*.

5.5.2 Results

In all, we were able to score seventeen states' use of tools on the ground (*tools score*) and to calculate the *tools potential* for all but one of the states. However, potential tools data were not verifiable for several states that did not respond to our survey.

The *tools potential* in states' CMPs ranged from a high of 0.90 in S. Carolina to a low of 0.10 in the N. Marianas and Alabama (not a participant in waterfront revitalization). *Tools scores* were highest in New Jersey (0.76) and lowest in Florida and S. Carolina (each 0.08). *Tools utilization rates* varied from a high of 100% (Hawaii, Washington) to a low of 9% (Florida, South Carolina).

In Table 5.10 we display these scores as High, Medium or Low and compare them to the *issue importance* that waterfront revitalization was assigned by the states' CMP managers. There is strong conformance between the issue importance today and the state's utilization of tools to

TABLE 5.9: WATERFRONT REVITALIZATION TOOLS AND PROCESSES UTILIZED BY STATES COASTAL PROGRAMS—
EFFECTIVENESS AND CONTRIBUTION TO OUTCOMES

State	Design -ation	Finan Asst	Tech Asst	Guide Docs	Ed & Train	Partne ring	SAMP s	LCP Revie w	Projec t Revie w	Env Revie w	Other Tools	Tools [†] † Pot'l	Tools* Score	Tools Utilz'n	Tools [†] Effect
ALASKA	0	6	0	0	0	0	3	0	0	0	0	0.80	0.12	15%	Unk
ALABAMA	0	0	0	0	0	0	0	0	0	0	0	0.10	Unk	Unk	Unk
AM. SAMOA	0	0	0	0	0	0	0	0	0	0	0	0.60	Unk	Unk	Unk
CALIFORNIA	4	14	14	10	0	14	0	5	8	0	0	0.80	0.48	60%	2.54
CNMI	0	0	0	0	0	0	0	0	0	0	0	0.10	Unk	Unk	Unk
CONNECTICUT	8	4	9	0	3	4	0	9	9	9	0	0.75	0.51	68%	3.00
DELAWARE	0	0	0	0	0	0	0	0	0	0	0	0.30	Unk	Unk	Unk
FLORIDA	0	5	0	0	0	0	0	0	0	1	0	0.85	0.08	9%	2.50
GUAM	0	0	0	0	0	0	0	0	0	0	0	0.70	Unk	Unk	Unk
HAWAII	1	0	0	0	0	1	0	0	1	1	0	0.30	0.30	100%	Unk
LOUISIANA	0	0	0	0	0	0	0	0	0	0	0	0.25	Unk	Unk	Unk
MASSACHUSETTS	10	5	7	1	0	10	4	5	0	5	1	0.80	0.37	46%	3.00
MARYLAND	0	15	0	0	0	15	0	0	0	0	0	0.80	0.30	38%	2.60
MAINE	0	18	0	0	0	18	0	0	0	0	0	0.65	0.28	43%	Unk
MICHIGAN	0	18	18	0	0	8	0	0	18	18	0	0.70	0.40	57%	2.61
MISSISSIPPI	8	8	8	0	2	8	1	0	0	0	0	0.80	0.54	68%	2.00
NORTH CAROLINA	0	0	0	0	0	0	0	0	0	0	0	0.45	Unk	Unk	Unk
NEW HAMPSHIRE	0	0	0	0	0	0	0	0	0	0	0	0.60	Unk	Unk	Unk
NEW JERSEY	7	6	7	7	7	7	0	0	7	5	0	0.80	0.76	95%	2.50
NEW YORK	0	45	45	0	0	45	0	32	22	22	1	0.80	0.49	61%	Unk
OREGON	0	11	5	1	1	1	2	1	0	1	0	0.85	0.30	35%	2.82
PENNSYLVANIA	11	7	17	13	4	3	0	8	9	14	0	0.80	0.37	46%	2.15
PUERTO RICO	0	0	0	0	0	0	0	0	0	0	0	0.15	Unk	Unk	Unk
RHODE ISLAND	0	0	0	0	0	0	0	0	0	0	0	0.75	Unk	Unk	Unk
SOUTH CAROLINA	0	0	0	0	0	0	3	0	9	0	0	0.90	0.08	9%	Unk
VIRGINIA	0	0	0	0	0	0	0	0	0	0	0	0.60	Unk	Unk	Unk
VIRGIN ISLANDS	0	0	0	0	0	0	0	0	0	0	0	Unk	Unk	Unk	Unk
WASHINGTON	0	28	28	28	28	28	3	23	27	27	0	0.75	0.75	100%	2.14
WISCONSIN	0	18	10	14	8	18	1	0	18	0	0	0.65	0.51	78%	3.00
US TOTALS	49	208	168	74	53	180	17	83	128	103	2	0.60	0.37	62%	2.52

^{††} Tools Potential calculated by authors for *each state CMP* in which the existence of a tool or process was identified by state coastal program managers, or was evident from program documents. Tools were weighted as follows: Designation: 2; SAMPs: 2; Partnerships: 2; Financial assistance 4; Technical assistance 2; Guidance documents 2; Education and training 2; LCP amendment review 1; Project review 1; Environmental review 1. The score was standardized to fall in the range of 0.00-1.00.

^{*} Tools Score calculated by authors for *each waterfront district* in which the use of a tool or process was identified by state coastal program managers, and averaged across all waterfronts in each state. The same weightings of tools were used in this calculation as in the Tools Potential column. (Tools in general use in a state, but not linked to a specific waterfront district, were excluded from the calculation.)

[†] Tools Effectiveness as determined by state coastal program managers (3.0 = high, 2.0 = medium, 1.0 = low)

address it in six states: California (Medium), Maine (Low), Maryland (Low), New Jersey (High), Washington (High) and Wisconsin (High). Connecticut rated waterfront revitalization High and scored at the high end of Medium on tools utilization; Guidance Documents was the only under-utilized tool in this state's extensive suite of available tools.

TABLE 5.10: ISSUE IMPORTANCE AND USE OF WATERFRONT REVITALIZATION TOOLS BY STATES COASTAL PROGRAMS

State	Issue Import.	Tools Potent	Potent. Rank	Tools Score	Score Rank	Tools Util.	Util. Rank	Combined Ranks Imp./Pot./Score/Util
ALASKA	MMH	0.80	H	0.12	L	15%	L	MMH/H/L/L
CALIFORNIA	MML/M	0.80	H	0.48	L	60%	M	MML-M/H/L/M
CONNECTICUT	HHH	0.75	M	0.51	M	68%	M	HHH/M/M/M
FLORIDA	MMH	0.85	H	0.08	L	9%	L	MMH/H/L/L
HAWAII	LLL	0.30	L	0.30	L	100%	H	LLL/L/L/H
MAINE	LLM/L	0.65	M	0.28	L	43%	L	LLM-L/M/L/L
MARYLAND	MLL	0.80	H	0.30	L	38%	L	MLL/H/L/L
MASSACHUSETTS	HHH	0.80	H	0.37	L	46%	L	HHH/H/L/L
MICHIGAN	HHH	0.70	M	0.40	L	57%	M	HHH/M/L/M
MISSISSIPPI	HHH	0.80	H	0.54	M	68%	M	HHH/H/M/M
NEW JERSEY	MHH	0.80	H	0.76	H	95%	H	MHH/H/H/H
NEW YORK	NHH	0.80	H	0.49	L	61%	M	NHH/H/L/M
OREGON	MM/HH	0.85	H	0.30	L	35%	L	MM-HH/H/L/L
PENNSYLVANIA	HHH	0.80	H	0.37	L	46%	L	HHH/H/L/L
S CAROLINA	Unk	0.90	H	0.08	L	9%	L	Unk/H/L/L
WASHINGTON	HMM	0.75	M	0.75	H	100%	H	HMM/M/H/H
WISCONSIN	MHH	0.65	M	0.51	M	78%	H	MHH/M/M/H

States that placed a High importance on the issue, but appear to have underutilized the tools available to them are: Alaska⁵ (specific tools underutilized—Designation, Guidance Documents, Education & Training, and Environmental Review), Florida⁶ (all tools except Financial Assistance), Massachusetts (Guidance Documents, Education & Training, Project Review⁷), Oregon (Designation⁸, Partnering, Project Review) and Pennsylvania (Financial Assistance, Education & Training, Partnering). Hawaii placed a Low importance on the issue but fully

⁵Some descriptive data that arrived too late to incorporate in the study suggests that Alaska has utilized more tools than the state originally was able to document.

⁶As noted above, Florida's new initiative in this issue area, the Waterfronts Florida Program, could push the state into a well-targeted, highly effective use of an expanded suite of tools.

⁷This finding seems at odds with the "High" importance the state CMP staff assigned to *project review*, as a tool. All projects in the state's tidelands and *former* tidelands require a Waterways License. During the review, there are opportunities to place conditions on development to provide public access to and from the water's edge and to protect present and future water-dependent uses from encroachment by non waterdependent uses. In their response to our survey, the state failed to link this important tool to specific waterfront districts undergoing revitalization.

⁸Oregon has used SAMPs to allocate certain estuarine shoreline areas that are surplus to the needs of water dependent industry for urban development and redevelopment. In a sense, this is a form of designation.

utilized the tools at its disposal. Michigan, Mississippi and New York all rated the issue High and achieved Medium utilization scores; Designation, Guidance Documents, and Education & Training appear to be the tools least utilized in Michigan's waterfronts, and, in New York, Designation and Education & Training were underutilized. Guidance Documents, Project Review and Environmental Review appeared to be underutilized in Mississippi's waterfronts.

5.5.3 Discussion

We remind the reader that these scores are calculated from data provided by state CMP officials who, for the most part, relied on individuals' memory rather than recorded observations to construct their responses to our survey. Conclusions we have drawn from these data are necessarily tentative and are presented to illustrate our approach to assessing the effectiveness of CZM.

The tools available to states' CMPs are constrained to some extent by state laws and policies—state oversight of local coastal programs, or project reviews using state consistency procedures, for example. Other tools, such as providing local government with federal CZM funds to undertake planning studies, producing and distributing guidance documents, or planning and conducting education and training programs for local officials, are, in most cases, discretionary and available to most coastal programs.

Institutional capacity to reach program goals entails more than an ideal suite of policies and tools, however. Leadership, adequate funding, qualified staff with enthusiasm for their work, assignment of program responsibility to an agency whose overall mission complements CZM, and an executive and legislature supportive of that agency are at least as important. This study did not attempt to collect information from the states that would enable us to assess these dimensions of CZM programs; but we certainly encountered CMP managers and staff whose knowledge, skills and enthusiasm were a potent force in helping coastal towns and cities in their states achieve waterfront revitalization. We also encountered states where CZM program responsibility had been shifted downwards to less prominent positions in state government.

With these caveats in mind, we can tentatively suggest that the utilization of tools available to coastal management program officials is a good indicator of linkage between a CMP's policies for waterfront revitalization and on-the-ground outcomes in revitalizing waterfront districts. But we cannot assign any *absolute* value to this linkage. Unlike the case in some other coastal management issue areas, the state's role is that of a partner with cities and towns undertaking revitalization of their waterfronts. A state CMP cannot lay claim to credit for so many acres of waterfront that has been revitalized, as they might lay claim to so many acres of wetlands protected by purchase, or miles of coastal bike trail acquired, using CZM funds.

6.0 Conclusions

6.1 National Effectiveness of Coastal Management Programs in Waterfront Revitalization

While our data are incomplete, we have shown that over 300 discrete waterfront districts in the nation's coastal zone have benefited, to varying degrees, from their states coastal zone management programs' attention to the national goal of revitalizing deteriorated ports and urban waterfronts. We have also demonstrated that there is a sequence of elements in state coastal programs that lead from the articulation of CZM policies addressing this issue, through CZM tools and processes applied to implement those policies, to concrete, on-the-ground outcomes that achieve the national goal for this important CZM issue.

Moreover, other affirmative CZM goals of increasing public access to the shore, giving siting priority to coastal dependent uses, conserving the historic and cultural heritage of the coast, and restoring degraded coastal environments are also being achieved in revitalized urban waterfronts. Brownfield sites are being cleaned up and contaminated sediments capped; historic structures are being reused for new people-friendly activities; traditional and new marine industries are being protected from encroachment by non-water dependent uses; plazas, parks, trails, boardwalks, viewing towers and fishing piers are luring people back to the water's edge; and, waterfront festivals and events, aquariums, maritime museums and harbor tours are delighting them when they get there. In the adjacent uplands, hotels and tourist centers, retail boutiques and restaurants serve residents, visitors and tourists, and produce economic benefits to the community.

All this has been achieved through partnerships between states coastal zone management programs, local communities, non-profit organizations, universities, and other state and federal funding and planning assistance programs. It is the nature of such partnerships that the exact contribution of each partner to the results achieved is impossible to measure, but simple to recognize.

6.2 Effective Strategies Used by States

There is no evidence that any of the states for which we have outcome data have been ineffective in addressing waterfront revitalization. The data assembled through this study do not capture the whole scope of waterfront revitalization, its visual and esthetic quality, or the levels of use revitalized districts attract. Nor does this study capture all the contextual factors—the history, politics, regional economic conditions and events—that created the problems on the waterfront, or will mediate their resolution. Small numbers of waterfronts in which quite simple kinds of improvements have been achieved through CZM funding and technical assistance may well address the needs of those communities for improved access and amenity; and, reaching a

workable plan for a single, major, metropolitan waterfront through a CMP's partnerships with other agencies, and breaking ground for the first symbolic public or private improvement, may represent a monumental achievement.

Where states determined that revitalizing deteriorated urban waterfronts and ports was an issue of sufficient priority to warrant attention through their CMP's, they found the necessary resources and employed the tools they had at hand to address the issue. Given the heterogeneity of states coastal programs, and the multiplicity of problems their waterfront cities confront, we found wide variations in the approaches taken by individual states to assist their partner cities. Of these approaches, five stand out as distinctive and effective strategies: Marketing state assistance programs; targeting specific waterfronts and ports; delegating responsibility to a networked agency; responding to local initiatives; and reacting through the regulatory process. While not mutually exclusive strategies, we found it quite easy to group states by their programs' dominant use of one of these five strategies.

6.2.1 Marketing Comprehensive Financial and Technical Assistance Programs

In many states where waterfront revitalization has occurred, the communities undertaking revitalization plans and projects appear to have self-selected, responding to the availability of financial or technical assistance through their states' CMPs.

Among the states CMPs that have sought partnerships with local communities by actively marketing their financial and technical assistance programs are a number that have achieved the most extensive waterfront revitalization results. California (16+ waterfront districts), Maine (19), (Michigan (20+), New York (45), Oregon (11), Pennsylvania (21), Washington (28), and Wisconsin (19).

These states, for the most part, comprise regions that have sustained significant industrial change over the last two decades which resulted in abandoned factories, wharves and docks along their downtown waterfronts. Such willing state/local partnerships as achieved in these states auger well for achieving on-the-ground results—a sort of free marketplace for those willing to make the effort to revitalize (towns and cities) and those willing to pay some of the price to achieve it (state CMPs).

6.2.2 Targeted Urban Waterfronts and Ports

A handful of states undertook an inventory of their coastal communities, either at time of program approval, or following the 1980 amendments to the FCZMA, to determine a target list of deteriorated or underutilized waterfronts and/or ports and designated them for action. American Samoa, Massachusetts, Pennsylvania and Mississippi employed this approach, motivated by both common and dissimilar concerns: American Samoa through a SAMP process to develop the Pago Pago Harbor area in a way that emphasizes its irreplaceable value as a working port and safe harbor and protects its natural resources and water quality; Massachusetts

through designation of 12 Developed Port Areas and 20 Special Assistance Development Areas sought to protect and revitalize ports and other coastal dependent uses from encroachment by non-coastal dependent commercial and residential development, and to enhance access to the coast by undertaking port master plans and harbor management plans; Pennsylvania designated 27 deteriorated waterfront districts for state financial assistance to undertake planning, historic/cultural restoration, and revitalization; Mississippi sought revitalization of eight designated Gulf Coast waterfronts for public access, recreation, efficient urban service delivery, and for heritage conservation.

Each state has achieved significant results using this focused approach to revitalization: In Massachusetts 13 waterfront districts have undertaken revitalization with state funding and assistance; in Pennsylvania 21 on their Delaware River and Lake Erie shores; and in Mississippi all eight designated districts have achieved revitalization results.

Other states have encouraged local communities to designate areas of deteriorated waterfronts for revitalization. Alaska cities, for example, have used Areas Meriting Special Attention (AMSAs)

6.2.3 Delegating to a Specialized Networked Agency

Three states employed networked arrangements to deliver urban waterfront revitalization services to local towns and cities. The Hawaii Community Development Authority was given responsibility for redeveloping the Kaka'ako Community Development District in Honolulu which abuts the downtown Honolulu waterfront. While no other waterfronts in the state's eight major islands have been designated for, or have undertaken revitalization with CZM involvement, the achievements on the Honolulu waterfront—particularly restoration of the Aloha Tower passenger terminal—have been noteworthy.

In Puerto Rico the Planning Board adopted the CZM program goals and policies as an element of the statewide land use plan and delegated responsibility for waterfront revitalization to the Puerto Rican Land Administration. Some redevelopment of piers has occurred in San Juan's harbor with Port Administration involvement, but our information about CZM involvement is sketchy.

The California State Coastal Conservancy is the designated agency for administering the state's Urban Waterfront Restoration Act of 1981, and coordinating activities of all other state and federal agencies whose programs affect California's urban waterfronts. The SCC helps to initiate revitalization through funding and planning assistance, coordinating acquisition, enhancement and restoration in waterfront revitalization efforts. At least sixteen, and possibly 50 waterfronts have benefited from the Conservancy's funding and planning assistance program.

In these three states the networked agencies developed productive partnerships with local governments and conducted their revitalization efforts under the watchful eyes of their respective

CMPs' lead agencies who ensured coastal management goals and policies were being met either through their oversight of local plans and review of permits (Calif. and PR), or through their direct involvement in scoping the waterfront plans (Hawaii).

6.2.4 Responding to Local Initiatives

The remaining states CMPs that have supported and assisted in local communities' revitalization efforts, have done so largely in reaction to local initiatives. Alaska, Connecticut, North Carolina, Maryland, Florida, Virginia, New Jersey, and Guam fall into this category. Florida's recent refocusing of CMP effort on this issue should propel the state quickly into the group of states "marketing comprehensive financial and technical assistance programs."

6.2.5 Reacting through Regulatory Review

A few states' CMPs have had little direct involvement in waterfront revitalization at the local level through either financial or technical assistance, but review waterfront plans and projects to ensure that they are in compliance with and reflect the goals and policies of CZM in their states. South Carolina and the San Francisco Bay Area segment of California's CMP have adopted this strategy.

6.3 Study Limitations

Studies such as this one that seek to document program processes and outcomes over a lengthy span of time—in this case 20-25 years—confront almost insuperable data problems. Personnel changes, record keeping practices, budget cuts and staff priorities confound the best attempts to assemble reliable and consistent information from program managers. In this particular program area the kinds of data needed to measure outcomes—land uses, kinds of development, financial and economic data, etc.—are rarely maintained by state CZM agencies.

The decision to focus our data collection at the state level was driven by budget and time considerations, and lead to reliance on the memories and experience of a relatively small number of CMP staff in each program. As a consequence, in the case of 15 of the 29 state and territories with approved programs, we have no data to link their CMPs' use of specific CZM tools and processes to individual waterfront districts; and, in four states we have no outcome data at all.

A richer vein of information available at the municipal level remains largely untapped. We have little graphical documentation (maps, plans, before-and-after photographs, etc.) of the on-the-ground outcomes of waterfront revitalization; and, more importantly, we lack an independent assessment of the effectiveness of contributions made by state CMPs to those outcomes from the "client group" which those programs serve. Searching out that kind of information is a task for another study with a staff and travel budget an order of magnitude larger than this one had...

At the beginning of this report we identified five conceptual and practical problems that attend the measurement of effectiveness of states' CZM programs in meeting the national goal of

waterfront revitalization. We have failed to address two: knowing the number of communities in each coastal state having deteriorated or under-utilized waterfronts; and, factoring in the costs of achieving on-the-ground results—i.e. program efficiency.

A true determination of CZM's effectiveness in responding to the national goal of waterfront revitalization would require knowledge about the magnitude of the problem being addressed—the number of deteriorated waterfronts in the coastal zone, and the scope and scale of their deterioration. We found no evidence that such a target has ever been adequately defined. Without a well-defined program target, it is not possible to assess the true meaning of results obtained. (Do the 303 waterfront districts we identified in this study that have undergone, or are undergoing revitalization constitute 50% of the problem? 90%? 10%. We simply do not know, though we suspect the figure lies between 50% and 90%.)

Rigorous assessment of effectiveness would also require some attention to the overall program costs incurred by each state in each waterfront district, not just the CZM grants passed through to local governments. Has CZM been cost-effective in addressing this issue? Did all §306 and 306A grants produce the results sought and lead to significantly more private investment in the target waterfronts? We have some data to suggest many CZM-funded projects lead to major accomplishments and economic benefits; others, clearly did not.

At least in part, we have addressed the three remaining problems: the scale and complexity of waterfronts; the significance of CZM's role in revitalization; and, attribution of the state CZM program's contribution to revitalization.

7.0 Recommendations

7.1 Recommendations for Improving the Effectiveness of State and Federal CZM Programs in Waterfront Revitalization

7.1.1 Funding of State Programs

Few national CZM objectives have a more diverse and extensive constituency than does revitalizing urban waterfronts. Fishers, boaters, joggers, walkers, shoppers, bicyclists, photographers, maritime history buffs, tourists, people watchers and artists all benefit when formerly deteriorated, walled-off waterfronts become accessible, safe and inviting. Inner city and suburb come together at waterfront festivals and other events; and new immigrants and long-established families rub shoulders at waterfront take-out fish 'n chips counters. Downtown property developers and marine conservation groups can and do join in developing and supporting waterfront plans that reinvigorate coastal economies and sustain marine environments.

There is overwhelming evidence from our study that financial assistance to local governments is the single most important tool available to states' CMPs to forge partnerships with cities to affect waterfront revitalization planning and, through low-cost projects, plan implementation. Furthermore, while CZM's financial contribution to waterfront revitalization represents a small proportion of all monies expended, it is an important catalyst to ignite local interest and demonstrate early success. Many states that hitherto provided §306 and 306A grants no longer do so due to federal funding cuts.

7.1.1.1 Restore Federal CZM Funding Levels

Without restoration of federal CZM funding to levels that will support increased grants to the coastal states, many coastal programs will be unable to maintain viable levels of financial and technical support for waterfront revitalization (as well as many other important areas of CZM).

7.1.2 National Urban Waterfronts Needs Assessment

This study has reported wide variations in the ways CMPs have addressed the needs and opportunities for urban waterfront revitalization in their states' coastal zones. Several have undertaken careful assessments of coastal cities' waterfronts and designated specific districts for attention. Others have relied entirely on cities to nominate themselves for financial and technical assistance offered by the state on a competitive awards basis. As a consequence, there are no consistent sources of information that could be aggregated to document the national need for CZM assistance to revitalize deteriorated waterfronts and establish a credible national priority for this important issue area. Two recommendations are made to alleviate this shortcoming.

7.1.2.1 Elevation of Waterfront Revitalization as a National Issue

To enhance the likelihood of achieving more comprehensive approaches to waterfront revitalization around the nation's coasts, NOAA/OCRM should consider promoting legislative changes to the CZMA that would add the issue to the Act's §309 enhancement objectives. The effect of this change would be to require each state's CZM agency to undertake a conscious, deliberate assessment of the issue, develop a strategy to address waterfront revitalization priorities in its CMP, and receive supplementary federal funding to implement the strategy. An additional advantage gained from elevating the issue to §309 status would be a more consistent monitoring of program results as the preceding year's strategy outcomes are assessed during each §309 grant cycle.

7.1.2.2 Urban Waterfronts Inventory

The problems these investigators encountered over data availability/accessibility point to a need for more consistent program monitoring and computer-based record keeping at both state and national levels. A handful of state programs—notably Maine and Connecticut, and to a lesser degree Pennsylvania and Washington—were able to provide detailed computer records which documented grant awards and the scope of the revitalization projects undertaken.

Records of §306 and §306A grants awarded by states to local governments are a potentially rich source of information on states' programs waterfront revitalization activities. Some states were able to provide printouts showing the dollar amount, recipient and purpose of grants they awarded to local governments. Had such records been available in a properly-documented and specifically-coded computerized *national database*, our data-gathering task would have been dramatically reduced in complexity, and the scope and accuracy of our data markedly enhanced.

States CMPs should be required to report to OCRM information on §306 and §306A grants to local governments or other entities in a standardized format that would identify the primary and secondary purposes of the grant, the dollar amount awarded, and a brief synopsis of the results achieved. States should also be encouraged to report awards of state-funded grants used to support CMP goals and policies.

OCRM should maintain an active and accessible database of such grants, coded to permit retrieval by state, grant recipient (municipality, university, state agency, etc.) and program area supported (public access, waterfront revitalization, etc.)

Building on this study's nationwide inventory of waterfronts undergoing revitalization, OCRM should develop and maintain an urban waterfronts database. The database should be expanded to include a listing of all urban places located on coastal waterways (marine shores, estuaries and tidal reaches of rivers)⁹. States' coastal managers should be asked to review the

⁹Some states CMPs include a list of coastal towns and cities with their population, but the information is usually out of date. NOAA/ORCA staff indicated to this investigator that such data may be already available on a coastal watershed basis, but would need parsing to limit listings to the CZ.

listings and to add notations concerning known, remaining areas of significant waterfront deterioration and dilapidation that might warrant attention over, say, the next five years.

The database should be capable of easy data export and import, run on desktop computer systems, and should contain a set of fields applicable in every state, and optional fields to accommodate unique needs and opportunities. The waterfront district should form the basic record in the database. Key fields might include:

- location (district, city, county, state)
- extent (acres, city blocks, feet of shoreline)
- waterbody (river, lake, marine embayment or open shore)
- present condition (descriptive text on deteriorated waterfront structures, abandoned industrial sites, access opportunities, etc.)
- brief history of waterfront (descriptive text on factors leading to present condition, and current status of those factors etc.)
- federal CZM funds spent (§306, §306A)
- other federal or state funds spent (plans, projects)
- municipal funds spent (plans, projects)
- partnerships developed (names of agencies, non profits, etc.)
- present stage of redevelopment indicators (Outcome Stage Indicators as defined in this study)
- present scope of redevelopment indicators (Outcome Scope Indicators as defined in this study)

Where states maintain records of development permits issued by local governments, flagging permits issued for projects (including environmental cleanup) within revitalizing waterfront district boundaries would yield additional and useful "scope" information (purpose/use; dollar value; date of construction complete, etc.).

7.1.3 Subject Area Expertise and Responsibility in NOAA/OCRM

It was not clear to the investigators that anyone in NOAA/OCRM was tasked with addressing waterfront revitalization as a major issue in reviewing state programs, or monitoring program amendments; nor did there appear to be individuals with significant expertise within OCRM to assist regional program monitors in this subject area. This was not always the case, however. In earlier years there were several highly knowledgeable staff in the former OCZM who undertook training and technical assistance programs that benefited the states, and provided a core area of expertise in matters affecting the urban coast.

7.1.3.1 NOAA/OCRM Staffing

NOAA/OCRM should recruit (or retain) staff to lead the office in this subject area and prepare to undertake significant new responsibilities if recommendation 7.1.1.1 were implemented.

7.1.3.2 Education and Outreach

NOAA/OCRM, in partnership with the coastal states and other NOAA offices, should help organize and provide funding for a reinvigorated education and outreach program in waterfront revitalization. Educational activities should build on the experience gained by some of the "leader states" in this issue area and focus on regional audiences facing similar urban coastal issues—brownfields, marine resource declines, small port development, adaptive reuse of historic structures, mixed use developments, creative financing, etc.

OCRM should strengthen and continue partnerships with other NOAA entities, including the NOS Coastal Services Center and the National Sea Grant College Program, to gain the widest range of expertise and regional reach for educational programs.

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Appendices

Appendix A: State Profile Summaries

Appendix B: Sample State Profile

Appendix C: Survey Questionnaire

Appendix D: Data Source and Quality Table

Appendix E: List of Revitalizing Waterfront Districts